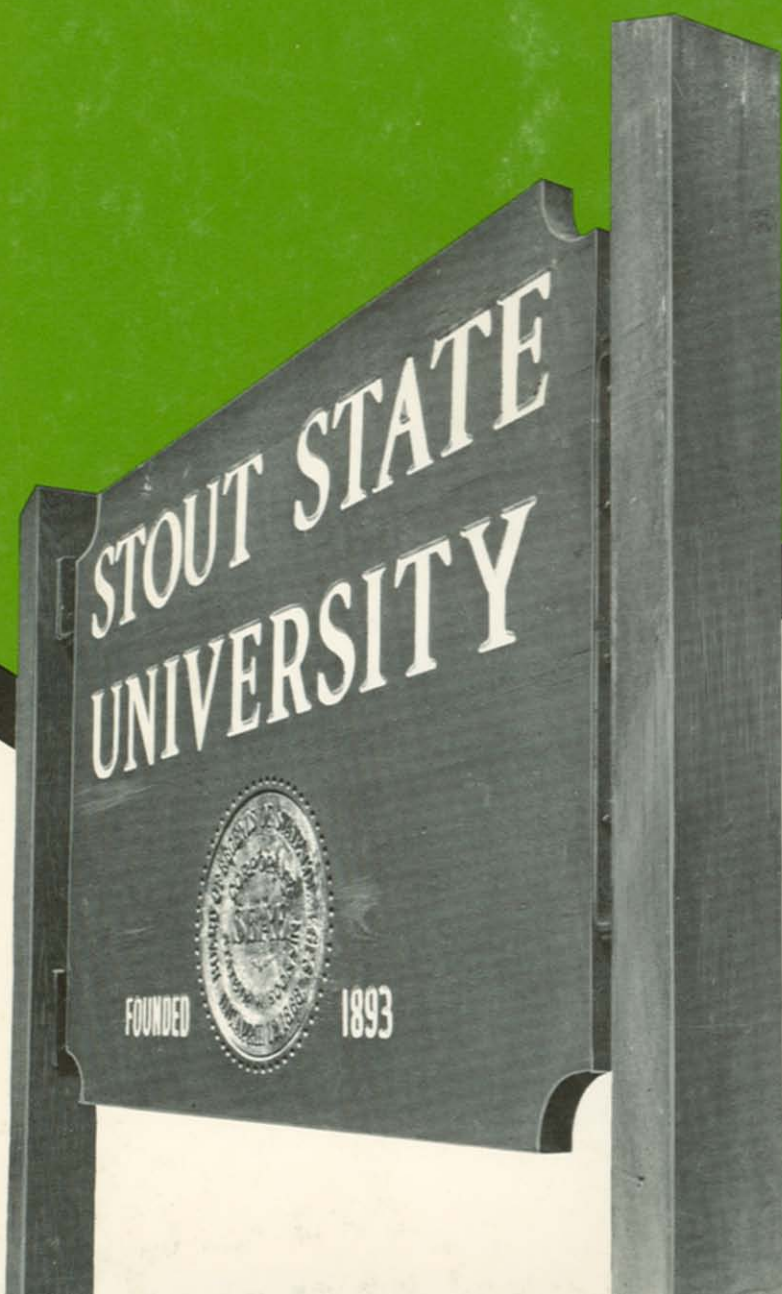


# ***UNDERGRADUATE BULLETIN***

**Regular Session**

***1972 - 1973***





## **Catalog of Courses 1972 — 1973**

**Stout State University**  
Menomonie, Wisconsin 54751

For information concerning the University, or any of its programs, write to: Director of Admissions, Stout State University, Menomonie, Wis. 54751.

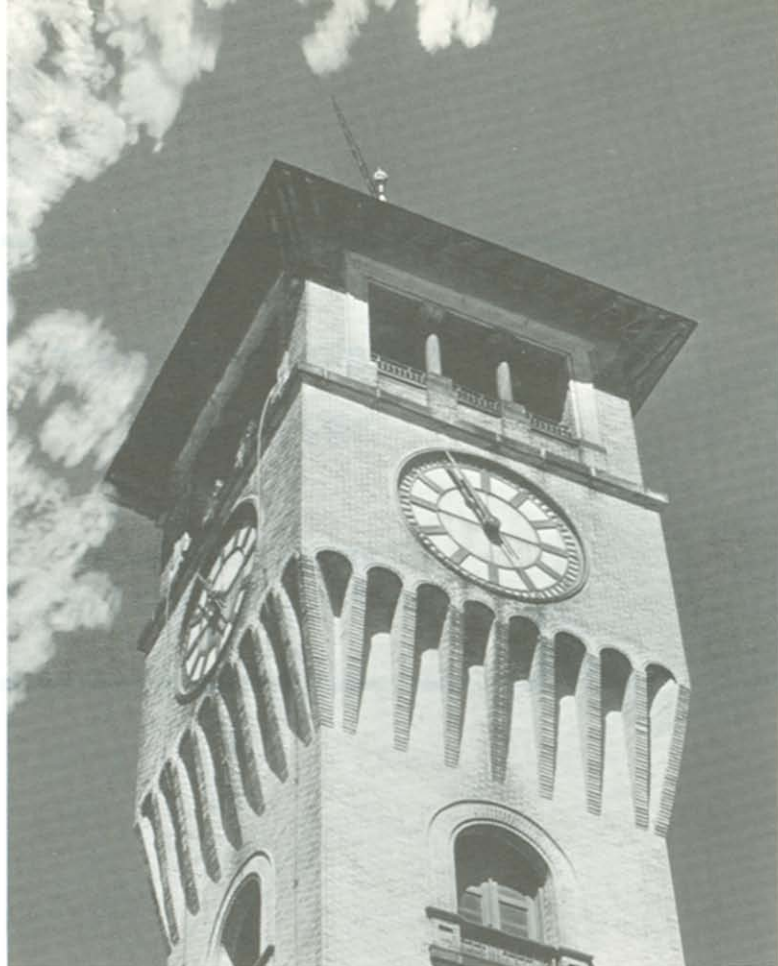
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Volume 58

UNIVERSITY OF WISCONSIN SYSTEM

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Admissions, Stout State University.



**Learning**

**Skill**

**Industry**

**Honor**

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# DEGREE PROGRAMS OFFERED

## HOME ECONOMICS

Child Development and Family Life  
Clothing, Textiles and Design  
Dietetics  
Early Childhood Education  
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Industrial Arts Education  
Industrial Technology  
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## LIBERAL STUDIES

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Art  
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Marketing and Distributive  
Education

## EDUCATION

Psychology  
Vocational Rehabilitation

## MINORS

|                  |                 |
|------------------|-----------------|
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| Biology          | Mathematics     |
| Business         | Physical Educa- |
| Administration   | tion (Women)    |
| Chemistry        | Physics         |
| Computer Science | Psychology      |
| Economics        | Safety          |
| English          | Sociology       |
| History          | Speech          |

## CONCENTRA- TIONS

|               |                   |
|---------------|-------------------|
| Building      | Plant Engineering |
| Construction  | Power Mechanics   |
| Electronics   | Product           |
| Graphic Arts  | Development       |
| Industrial    | Technical Sales   |
| Graphics      | and Service       |
| Manufacturing | Technical Writing |
| Engineering   | Woods and         |
| Metals        | Plastics          |
| Packaging     | Mechanical Design |

## ACCRED- ITATION

North Central Association of  
Colleges and Secondary Schools  
National Council for Accreditation of  
Teacher Education



*University President  
William J. Micheels*

## GENERAL INFORMATION

### UNIVERSITY MISSION

Stout State University is committed to an educational program which helps students to seek, discover and master careers in selected areas related to business and industry, human development and education. Recognizing the interdependence of all areas of knowledge, the University seeks to complement its specialized education with those broader learning experiences essential for personal, professional and social competence. In fulfilling these basic purposes, all segments of the University strive diligently to provide an environment in which:

- \*There is an emphasis on excellence in teaching with a full understanding that the primary function of teachers is to help students learn.
- \*Students are encouraged to identify and to meet their own individual needs while gaining an awareness of and appreciation for the needs of others.
- \*Each student is stimulated to develop an increasing sense of responsibility for his interactions with society.
- \*Students learn to live purposefully and effectively in a rapidly changing world through learning experiences which develop both the ability and the willingness to modify their thoughts and actions in light of new evidence.
- \*Students are motivated toward a lifelong desire to learn, to know and to create.

## HISTORY

If James Huff Stout were to arrive today on the Stout State University campus after an absence of 60 years, he would scarcely be surprised at the growth of the institution which he founded. Senator Stout was a man of great vision. An industrialist, he saw that the great need of the future industrial society was a different kind of education, an education broader than that provided by the traditional curriculum. Thus, the college was started—from the vision of one man about the future of America. James H. Stout came to Menomonie in 1889 to help run a major lumbering concern—Knapp, Stout & Co. This quiet, dignified man put his money and his talents to work on a variety of civic enterprises including education, library development, horticulture, art, conservation, and the good roads movement. His pet idea, however, was industrial education, that is, manual arts and domestic science, introduced as a part of public school education.

His plans took shape in a cooperative effort with community leaders, first in a two-story frame building erected on the corner of Main and Broadway, then in a new building erected where Bowman Hall now stands. This building burned to the ground, but James Stout immediately agreed to build a still more ambitious structure, now Bowman Hall. This new structure, built in 1897, offered in its tower a symbol linking through the years the Stout Manual Training School, The Stout Institute, Stout State College and Stout State University.

Stout's kindergarten schools and the schools of manual training and domestic science brought a demand for the training of teachers. In 1903 the Stout Training Schools were born, then incorporated in 1908 as The Stout Institute. In spite of Senator Stout's death in 1910, the vision of the founder lived on. Senator Stout's family relinquished the school to the State of Wisconsin.

Lorenzo Dow Harvey, a national figure in the area of industrial education, became the president of The Stout Institute. Harvey was also a man of great vision. Under his leadership, Harvey Hall and Ray Hall were erected. The greatest accomplishment of President Harvey, however, was the extension of The Stout Institute to a four-year college.

The years of our war with Germany put a dent in the enrollment of The Stout Institute, but the college emerged from the war stronger than ever. In 1922, President Harvey died rather suddenly. His place was taken temporarily by Clyde A. Bowman, fated always to be second in command. His steadying hand in the administration of three presidents helped the institution to survive difficult times.

Burton E. Nelson became president of The Stout Institute in 1923. Under his direction, the two-year and three-year programs were phased out and The Stout Institute began to meet the standards of accrediting agencies. The 1930's were times which tried the souls of the administration and faculty when salaries were cut, staff was laid off, and enrollment dropped. The Stout Institute emerged from the depression years with the same high standards which had made it a world-famous school. The world conflict of the 1940's brought great problems which Burton E. Nelson faced with courage in his declining years. He noted in his diary "I quit when Hitler does" and made good his promise.

President Nelson was succeeded by Verne C. Fryklund, whose books in the field of industrial education had made him a national figure. As



President Fryklund took over, veterans began to swarm back to school, accompanied by girls who wanted to be where the boys were. The swelling enrollment brought welcomed problems solved by the addition of new buildings. Administratively, The Stout Institute was shifted from the Board of Vocational and Adult Education to the Board of Regents of the Wisconsin State Colleges.

Each succeeding president of the college has given the dream of Senator Stout a slightly different interpretation. All of these interpretations have become a part of the heritage. President Fryklund, for example, interpreted the dream in terms of vocational, technical, industrial arts and home economics education. President Fryklund's retirement brought a different concept.

William J. Micheels, a native of Menomonie and a 1932 Stout graduate, interpreted the dream in a broader sense. He brought to prominence again, for example, the blending of the artist and the artisan which had been so much a part of the thinking of Senator Stout.

Pre-1960 graduates visiting the campus in recent years are overwhelmed by the burgeoning enrollment and by the mushrooming buildings. Changes under the surface are even more significant as The Stout Institute, now Stout State University, responds to the needs of a changing society.

Stout overlooks scenic Lake Menomin in Menomonie, a pleasant city with a population of 11,000. Menomonie is located on Interstate 94, an hour by automobile from Minneapolis and St. Paul and 30 minutes from Eau Claire.

## ADMISSION PROCEDURE

Application for Admission forms may be obtained by writing to the Director of Admissions or from the office of the Director of Guidance at a high school.

High school students may apply for admission any time after Oct. 1 of their senior year. Students are urged to submit applications no later than March 1. As soon as the completed application is received, the Director of Admissions will evaluate the information and will notify each student regarding his eligibility to enroll. Those who are accepted will receive by return mail a housing application form, a health examination form, and pertinent information describing subsequent steps necessary to complete the admission and registration process.

All applicants for admission are required to participate in the American College Test (ACT) program. The test is administered in centers convenient to every student. Information and application forms are available in the Guidance Department at each high school. The results of the tests are used as criteria for admission and for placement in mathematics and English courses.

## ENTRANCE REQUIREMENTS

Students admitted to Stout State consist of three groups:

1. Those who have graduated from an accredited high school.
2. Those who have submitted evidence of studies pursued successfully at an institution of higher education.
3. Those who qualify as adult special students.

## HIGH SCHOOL GRADUATES

Entrance requirements for high school graduates are as follows:

1. Graduate from an accredited high school and in the upper three-fourths of his class or
2. Graduate from an accredited high school and have an ACT standard composite of 17 or better and
3. Be recommended by a high school official.

NOTE: Students not meeting the requirements of items 1 and 2 may attend a summer session at a Wisconsin state university following a prescribed course of study. Students earning a 1.5 grade point average based on a 4 point system during the eight week session would be eligible to enroll for the fall semester.

## TRANSFER STUDENTS

Because of the heavy concentration in the highly specialized technical fields, students who plan to transfer to Stout State are strongly encouraged to do so by the beginning of their sophomore year.

A transfer student should request that two copies of his transcript from each institution of higher learning that he has attended be submitted to the Director of Admissions at Stout State University along with the Application for Admission. Transcripts are required even if the student earned no credits or if he does not desire to transfer any credits. Failure to declare previous attendance at any institution of higher education may result in immediate suspension. Also required is a Personal Reference Request form for completion by the Dean of Students or his representative from the last institution attended. This form will be mailed to the applicant following receipt of his application for admission.

A student who has attained an overall grade point average of 2.0 or better at the school or schools he previously attended may transfer all courses in which he has attained a grade of "D" or better as long as these courses are applicable to the curriculum which the student has selected at Stout State. Students whose overall grade point average is below 2.0 will be allowed to transfer those applicable credits which are "C" or better, and may be admitted on probation if a similar record earned at Stout State would have placed them on such a status.

## TECHNICAL INSTITUTE TRANSFER POLICY

Stout State will accept students from technical institutes if they are part of a major program (associate degrees) accredited by the Wisconsin State Board of Vocational, Technical and Adult Education. The procedures used for evaluating these credits will be the same as those used by NCA accredited colleges and universities: (a) Students who have an overall grade point average of 2.0 or better may transfer all applicable courses in which he has attained a grade of "D" or better. If his overall grade point average is below 2.0, only those applicable courses with a grade of "C" or better will be accepted. (b) Courses must be listed on a technical institute transcript. (c) Transcripts must be signed by the Registrar or other responsible officials of the technical institute. In addition the student must be recommended by the director or other responsible technical institute officials.

Courses completed as a part of a vocational level (diploma) program will not be accepted in transfer. Students wishing credit for such courses



may be awarded them only after completion of an examination by the appropriate department or departments involved.

All evaluations (posted on Stout State University transcripts) will include the phrase: "Provisional credit is awarded, to be validated by satisfactory work in residence."

Credits earned at Vocational, Technical and Adult Schools accredited by the NCA will be accepted as they have been in the past.

## ADULT SPECIAL STUDENTS OR VETERANS

Adults over the age of 21 may be admitted even though they have not completed high school if scholastic success and appropriateness of the offerings of the University are indicated by tests and interviews conducted at the University. Those who expect to enter as adult specials should arrange with the Director of Admissions for such testing and interviewing well in advance of the term for which entrance is desired.

## FINANCIAL INFORMATION

### FEES

Since the catalog must be prepared far in advance, all fees, room and food rates, and other charges are subject to change without notice. Fees are payable during the pre-registration period that precedes each term. Students who do not pay their fees by a stipulated date following the pre-registration period will have their pre-registration cancelled. They may still register but run the risk of having some classes closed for which they had previously pre-registered. The fee receipt is to be retained by the student. Students are not admitted to classes without this receipt.

### WISCONSIN RESIDENT FEES PER SEMESTER\*

|                            |       |
|----------------------------|-------|
| Incidental Fee .....       | \$182 |
| Student Activity Fee ..... | 20    |
| Textbook Rental Fee .....  | 25    |
| Student Center Fee .....   | 11    |
| Health Fee .....           | 8     |

\*The listed fees were in effect in January, 1972

### NON-RESIDENT TUITION AND FEES

There is no tuition charge for residents of Wisconsin. The tentative tuition and fees for full-time (at least 12 semester credits) non-resident undergraduates are \$749 per semester. A non-resident is defined as any student who has not been a resident of the state for one year preceding his admission to Stout State University.

### PAYMENT POLICY

Students may pay their fees in full or may select an installment plan. Under the installment plan now in effect, a one percent per month (12 percent per annum) service charge is added to the unpaid balance. Students are assessed a late payment fee of \$5 for failure to meet payment

deadlines. Payment deadlines are announced before the start of each semester. The schedule:

|                      |     |
|----------------------|-----|
| First Payment .....  | 40% |
| Second Payment ..... | 20% |
| Third Payment .....  | 20% |
| Fourth Payment ..... | 20% |

## DELINQUENT FINANCIAL ACCOUNTS

**PRE-ENROLLMENT:** Students delinquent in their financial obligation to the University will not be allowed to pre-register or register for any coming term.

**ENROLLMENT:** Students not fulfilling their financial responsibility by making payments on normal due dates will have a maximum of 30 days after due date to clear their financial obligations. Students failing to meet their financial responsibility will be notified by letter of the date on which final disposition of their case will be made. Students who have not cleared their financial obligation will be subject to being dropped immediately from the University following that date. Reinstatement during the balance of that term will not be permitted.

**POST-ENROLLMENT:** Grades, transcripts, and diplomas will be withheld for all students who are delinquent in their financial obligation. Letters stating a student's financial delinquency will be mailed to the student's latest known address and parents or guardian. The Comptroller may forward delinquent account statements to the State Attorney General for collection.

## UNIVERSITY SERVICE FEE

All students are members of the Stout Student Association. The University service fee entitles every student of the college to admission to all athletic events, to all concerts given by the student musical organizations, to productions by the dramatic organization, to lyceum and assembly programs sponsored by the college, and to all student dances given under the auspices of the student association. The fee also covers the cost of subscription to The Stoutonia, the student weekly newspaper; The Tower, the college annual; class membership; and membership in the Student Center.

## STUDENT CENTER FEE

The student center fee is used to pay for the cost of construction of the building and to maintain and operate it.

## TEXTBOOK FEE

Textbooks are provided to undergraduate students on a rental basis at the rate of \$11 per semester.

## LABORATORY AND SHOP COSTS

In general, all materials for laboratories and shops are furnished. However, in a few courses the student furnishes material for a project which is to be his own personal property when completed.

## PART-TIME STUDENTS

All resident undergraduate students taking 11 or fewer semester hours of credit and graduate students with seven or fewer semester hours of credit shall be classified as part-time students. These students shall tentatively pay an incidental fee on a per credit basis.

## SPECIAL FEES

|                                                             |         |
|-------------------------------------------------------------|---------|
| Graduation Fee .....                                        | \$ 7.50 |
| Special Examination Fee (taken in special cases only) ..... | \$ 2.00 |
| Late registration .....                                     | \$10.00 |
| Commencement regalia rental based on cost.                  |         |

## REFUNDS ON FEES

1. Withdrawal refunds will be given for academic fees and service fees based on the schedule below:

|                              |                |
|------------------------------|----------------|
| First week of classes .....  | 100% less \$50 |
| Second week of classes ..... | 80%            |
| Third week of classes .....  | 60%            |
| Fourth week of classes ..... | 60%            |
| Fifth week of classes .....  | -0-            |

The non-refundable amount shown above for the first week of classes is for a full-time student. At any given time of withdrawal, the non-refundable amount will be not less than \$50 for semester students and \$35 for quarter students. Part-time students should also be assessed a non-refundable charge in proportion to their total credits carried.

2. Full refunds will be given for credit drops during the first two weeks of classes. Credit drops after the first two weeks will be non-refundable.
3. Students who enter military service by enlistment, draft or otherwise, shall receive either a full refund of fees or receive course credits for the term.
4. In determining withdrawal date, the University uses the date the student notifies the school of the withdrawal; or if the student fails to notify the school and is otherwise unable to verify the date of withdrawal, the date of the request to refund should be used to determine the amount of the refund.

## RESIDENCE HALL AND FOOD COSTS

Currently, the semester charge for room (double) and board (21 meals per week), if paid in advance, is \$484. Single room charges total \$544. Students may pay their resident hall and food costs in full or may select an installment plan. Under the installment plan now in effect, a one percent per month (12 percent per annum) service charge is added to the unpaid balance. Students are assessed a late payment fee of \$5 for failure to meet payment deadlines. Payment deadlines are announced before the start of each semester. The schedule:

|                      |     |
|----------------------|-----|
| First Payment .....  | 40% |
| Second Payment ..... | 20% |
| Third Payment .....  | 20% |
| Fourth Payment ..... | 20% |



**DEPOSITS:** A \$75 room deposit is required on all room reservations at the beginning of the first term. Students cancelling admission to the University prior to July 15 of the fall term shall be refunded in full. After July 15, for students cancelling admission or failing to register, the deposit is forfeited.

**REFUNDS:** Students who voluntarily withdraw from the University shall be refunded room and board paid in advance on a weekly prorated basis. In all cases, the refund begins on the Monday of the week following withdrawal. Students withdrawing from the University voluntarily shall forfeit the \$75 room deposit.

**WITHDRAWALS:** (1) Students who withdraw for military service or are suspended by the University shall be refunded room and board paid in advance on a weekly prorated basis, including the deposit less any assessment of residence hall damage claims. (2) Date of Withdrawal — In determining withdrawal date, the University uses the date the student notifies the school of the withdrawal, or if the student fails to notify the school and is otherwise unable to verify the date of withdrawal, the date of the request to refund should be used to determine the amount of the refund.

## SCHOLASTIC STANDARDS

Credit is expressed in semester hours. A credit of one semester hour represents the satisfactory completion of the work of one recitation a week for a period of one semester. A course having five recitations a week will therefore give five semester hours of credit.

In order to receive a degree, the student not only must gain the required number of credits in the course which he is pursuing, but also must attain a certain standard of scholarship. This standard is fixed by grade points as credits.

Cumulative grade point averages are determined by the "grade point system"; they are computed by dividing the total number of points earned by the total number of credit attempted. Point values for the various letter grades are as follows:

| Letter Grade   | Grade Points Per Credit              |
|----------------|--------------------------------------|
| A              | 4                                    |
| B              | 3                                    |
| C              | 2                                    |
| D              | 1                                    |
| F (Failure)    | 0                                    |
| I (Incomplete) | 0 (Not counted as credits attempted) |
| W (Withdrew)   | 0 (Not counted as credits attempted) |

Courses in which grades of "P"—Pass or "S"—Satisfactory are recorded but not included in the computation of grade points and grade point averages. No-credit courses are not counted as credits attempted each time of enrollment. A student may repeat courses in which grades of F or D are received.

## SUSPENSION AND PROBATION

A 2.0 grade point is needed for graduation. A lower grade point average at any time, although it may not result in probation or dismissal, cannot be construed as satisfactory progress toward a degree. Moreover,



certain curricula may require that a student have a grade point average greater than 2.0. To assist the student in his orientation to university level work, the minimum acceptable standards for retention are defined as follows:

1. A first semester freshman will be placed on probation if he achieves a grade point average less than 1.6 at the end of the semester; he will be suspended if his grade point average is less than .75 at the end of the semester.
2. A second semester freshman will be placed on academic probation if his cumulative grade point average at the end of the second semester is less than 1.8; he will be suspended if his grade point average is less than 1.0 for the semester.

A student who has been declared academically ineligible to continue at a university may request a hearing from a faculty committee assigned such responsibility of appeal. The probation and suspension statements in the preceding paragraphs apply to all campuses of the Wisconsin State University System. Thus a student suspended for academic reasons on one state university campus may not enroll at another state university campus until he would be eligible for re-admission at the university which suspended him. This section contains only a partial listing of regulations. A booklet, "Academic Probation and Dismissal Policy," contains a complete listing. This booklet can be obtained in the Registrar's office.

## FALSIFICATION OF RECORDS

Students are expected to provide the University with accurate information concerning their past personal and educational history. The University policy indicates that any student who intentionally falsifies information given as part of his University record becomes subject to automatic suspension.

## PROGRAM CHANGES

Students may add classes until the end of the first full week of classes. This applies to quarter and semester classes. As a general policy, students are expected to complete courses for which they enroll. However, if a student deems it necessary after consultation with his instructor and advisor to reduce his program, he may choose to withdraw from a course on or before:

|                                |         |
|--------------------------------|---------|
| First Quarter                  | Oct. 15 |
| First Semester/Second Quarter  | Dec. 1  |
| Third Quarter                  | Feb. 25 |
| Second Semester/Fourth Quarter | May 1   |
| Summer Session                 | July 25 |

Failure to attend class or merely giving notice to instructors will not be considered an official withdrawal and may result in the student receiving a failing grade.

Upon completion of the proper withdrawal procedure, the Registrar will record "W" (withdrawn) on the student's permanent record. "W's" will not enter into the calculation of a student's grade point average.

Generally, if a student chooses to withdraw after the above dates, the Registrar will record "F" on his permanent record. In cases of illness or extenuating circumstances, the Dean of the school in which the student is majoring, in consultation with the student, his instructor and his advisor, may authorize the award of "W" in place of "F".

## PROCEDURE FOR WITHDRAWAL

Withdrawal should be undertaken only after most serious consideration. To insure careful consideration of the intention to withdraw, to protect the students from the dangers which may result from failure to use the approved withdrawal procedures, and to assist University officials who are concerned with withdrawals, the following procedure has been established:

1. The person intending to withdraw schedules an exit interview at the Student Services office. If the withdrawal is to occur, a withdrawal form provided by the office is to be signed by prescribed University personnel.
2. This form, containing the signatures of the designated persons, is then filed with the Registrar.

A student who fails to withdraw officially from this University will receive a grade of "F" in all courses he is pursuing.

## SPEECH PROFICIENCY

Certain curricula require that students have speech proficiency for graduation (see the basic requirements for each major). The speech proficiency of students is evaluated in 391-100, Fundamentals of Speech. Those students not having acceptable speech may seek help from the Speech Department by enrolling in the non-credit speech evaluation program or by selecting a second speech course (391-200, 391-202, 391-206, 391-208 or 391-512) where they may attempt to achieve proficiency.

## REQUIREMENTS FOR GRADUATION

The semester credit hours required for graduation vary slightly with the major and are stated under the course of study for each major. Total grade points must be twice the number of semester hours. The normal time required for the completion of these requirements is four years and results in the awarding of the Bachelor of Science or Bachelor of Arts degree. Meeting the requirements for graduation is a responsibility of the student.

To fill the minimum residence requirement the last 32 semester hours of credit (64 grade points) must be earned in residence at Stout State University. Candidates for degrees are required to attend the commencement exercises. Registration with the Career Planning and Placement Services office is a requirement for graduation.

Candidates for degrees are required to file an Application for Degree card with the Registrar one semester prior to graduation. All seniors are expected to register and establish personal credentials in the Career Planning and Placement Services office in ample time to accommodate planning and placement prior to graduation.

## GRADUATION WITH HONORS

In each graduating class, the selection of students for high distinction and distinction is based upon scholarship. A student must have a minimum grade point of 3.2 and have earned at least 45 semester hours of credit in residence one semester prior to graduation to be considered for honors. The high distinction group will consist of students with a grade



point average of 3.5 or higher. The distinction group will consist of students with a minimum grade point average of 3.2. These honors are indicated on the commencement program and are made a part of the student's permanent record.

## ATTENDANCE POLICY

This policy will apply to all students enrolled at Stout State University:

1. Regular attendance is the responsibility of each student and it is assumed that all students will attend those classes for which they are registered.
2. The attendance policy of each instructor is to be submitted in writing to each class. It may be discussed with or explained to the students. The instructor is urged not to use attendance as a major or fixed factor in the calculation of the student's grade.
3. The responsibility for assignments, experiments, or other class activities carried on during any absence rests with the student.
4. Excuses or notification for student absences will be issued by the Dean of Students under the following circumstances:
  - a. For school sanctioned events such as field trips, athletic contests and the like.
  - b. For unusual absences students may seek because of lengthy illness or family situation.

## SPECIAL PROGRAMS

### OVERLOAD POLICY

Freshman and sophomore students whose total grade point average is 3.5 or better may enroll for a maximum of 20 credits. Students whose grade point is better than 3.0 but less than 3.5 may register for a maximum of 19 credits. Students who average 2.5 or better may register for not more than 17 credits except with special permission of the Dean of the appropriate school. There are no restrictions on the number of credits taken by students classified as juniors or seniors at the time of registration. However, students who anticipate carrying an overload are urged to work closely with their advisors. It is recommended that a student on probation be advised to carry a reduced program.

### HONORS COURSES

Several honors courses are offered each year. An honors course is intended for students who present evidence of mastery of basic concepts of the subject. Additional opportunities for enrichment are provided.

### INDEPENDENT STUDIES PROGRAM

Many students at Stout State University design their own courses for credit. They set their own personal learning objectives; develop the best learning methods to achieve those objectives by using resources such as books, periodicals, people, trips, laboratory equipment, etc.; design their own final test; and even decide what type of grading system that is to be



used in evaluating their study. The ability for a student to design his own course is made possible by a flexible academic program called Independent Studies.

The Independent Studies program is open to all students during any enrollment period. Credits are awarded on the basis of expending approximately 40-50 hours of effort for each credit. After a topic area for an Independent Study has been selected and approved by an appropriate department chairman, a faculty member is then assigned each student as a learning coordinator to counsel and aid the student in achieving his or her desired learning objectives. At the conclusion of the study, this learning coordinator then assigns a final grade for the study.

Perhaps the biggest advantage of the Independent Study program is for students to become better self-directed learners. Upon graduation the ability to be a self-directed learner can be a major factor in helping a person achieve his potential in our ever-changing society. This program also provides more scope and depth in the curriculum by encouraging students to: investigate areas of interest not currently included in any approved course at Stout; study areas and develop projects which cut across course boundaries; or delve more deeply into specific parts of an existing offering.

Applications and additional information are available in the Independent Study-Field Experience office. Independent Study courses are offered as electives in almost all majors, minors, and departments and at least one Independent Study is now required in several majors and minors.

## EXTENSION SERVICES

The University offers a program of evening and Saturday morning extension classes. Credits earned through enrollment in these off-campus courses are considered as extension credits (not residence). They are transferable to Stout State University on the same basis as they are to other colleges and universities. Registration for these courses is completed at the first class meeting by a representative of the University or by the instructor. Textbooks required for the class by the instructor are made available for purchase at the first class meeting.

Course numbers, titles and content are the same as those offered on the University campus. Courses numbered in the 500's and 600's carry either graduate or undergraduate credit and those numbered 700 and above carry graduate credit only.

Students previously matriculated on the Stout State University campus may enroll in off-campus credit courses, provided they are eligible to continue in the University and provided the courses which they wish to take are applicable toward the degree they seek. Undergraduate students who wish to earn Stout State University credit who have not previously matriculated must file a regular Application for Admission including transcripts from all schools attended to the Director of Admissions office.

Students wishing to earn graduate credit must have filed an Application for Admission to the Graduate College and have the Registrar of the college awarding their Bachelor's degree send a statement to the Stout State University Registrar certifying that they hold a degree. Such students may receive graduate credit, but will not be considered Master's degree candidates until they meet all other admission requirements.

## FIELD EXPERIENCE PROGRAM

Students are encouraged to obtain part of their college education off the Menomonie campus through the Field Experience program. This program allows a student to receive academic credit for learning related to their major or minor while employed in an approved, off-campus field position. This off-campus learning is then coordinated with classroom studies by means of weekly summary sheets, a final written report and an oral seminar when they return to campus.

Most students use their summers to enroll in this program but part-time work is also usually permissible if it fulfills the requirement of employment, 320 hours. Most students obtain their own field position which is part of the educational experience, however, aids to finding and securing field positions are available. Students may repeat the course for credit, but the experience must be in a different organization or progressively more advanced in the same organization. The student's field position and their own individual learning objectives are reviewed and approved by the chairman of the department offering the course.

In the past, students have found that enrollment in this program has: improved their motivation at school as they discovered the relationships between theory and practice; helped them in developing better human relations skills; plus provided them with an effective means of gaining vocational guidance information concerning their major.

Field Experience courses are offered as electives in almost all majors, minors and departments, and at least one Field Experience is now required in several majors and minors. Application forms for enrollment in the program are available in the Independent Study-Field Experience office. A separate summer graduate level Field Experience program has been developed for in-service vocational teachers and guidance counselors employed at both the high school and post-high school levels.

## AFFILIATION WITH THE MERRILL-PALMER INSTITUTE

Stout State University carries an affiliation with The Merrill-Palmer Institute in Detroit, a private institution with a program devoted to study of human development and family services with special emphasis on the inner city family.

Sophomore students in any home economics program may make application to study at Merrill-Palmer for their junior year. The Merrill-Palmer committee, appointed by the Dean of the School of Home Economics, administers the program with the aid of the Admissions office. This committee selects students eligible for the program on the basis of scholarship and readiness for intensive study in human relationships.

## CREDIT FOR INDUSTRIAL WORK EXPERIENCE

Under certain conditions University credit will be granted for experience in industry. In all cases a careful evaluation will be made of the appropriateness of such experience to fulfill degree requirements and vocational objectives. Credit may be awarded for: (1) previous trade or occupational experience, (2) University supervised industrial work assignments, and (3) special schools conducted by industry.

1. Previous trade or occupational experience. A maximum of 24 semester hours of technical credit may be earned through examination by those students who have completed an apprenticeship, plus three



years of successful journeyman occupational experience. Students with less than this amount (seven years) of experience may request examination in specific technical courses upon presentation of evidence of appropriate work experience in that area.

Students wishing to receive credit for journeyman experience should first present evidence of the required amount of work to the Dean of the School of Industry and Technology. Such evidence should be presented shortly after the first enrollment to allow special program consideration. If the work experience is deemed satisfactory by the Dean upon the completion of 60 semester hours of credit, an examination will be arranged as follows:

- a. An advisory examination committee from the trade or occupations will be set up. Agencies to be represented on the advisory examining committee will include the State Board of Vocational and Adult Education, employers in the occupation, employees in the occupation, and Stout State University. The examinations will be conducted at Stout State University and will include oral, written and performance sections.
- b. The University will hold examinations to include written work and performance.
- c. Upon satisfactory completion of such examinations, the advisory committee will be convened for an oral examination. All reasonable expenses for the examination will be borne by the student.
- d. The examining committee will recommend the amount of credit to be awarded to a maximum of 24 semester hours.

## SPECIAL SCHOOLS

Special schools are conducted by industry. Many manufacturers offer specialized, often short term, technical courses. Some of these are suitable for University credit. The following guidelines are used to award such credit:

- a. The student makes all arrangements with the Extended Services office.
- b. Credit is awarded on the basis of one credit for each full week of attendance.
- c. Students must be enrolled and pay fees at the University prior to taking the course.
- d. Approval by the Dean of the School of Industry and Technology will be necessary prior to enrollment for credit.

## SUMMER SESSION

The summer session is 10 weeks in length and is subdivided into a two-week pre-session and an eight-week regular summer session. In addition, some courses during the eight-week period are scheduled for less than the full term to accommodate special needs and interests.

Credit may be earned at the rate of one semester hour per week of full attendance. Generally, this makes it possible to earn 10 credits during the summer.

The summer schedule includes a variety of courses for the various undergraduate degree programs. Because of the large graduate enrollment, practically all graduate courses are offered each summer with multiple sections of large enrollment classes. Some non-credit workshops are offered, but most of the work provides University credit.



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The summer schedule includes a variety of courses for the various undergraduate degree programs. Because of the large graduate enrollment, practically all graduate courses are offered each summer with multiple sections of large enrollment classes. Some non-credit workshops are offered, but most of the work provides University credit.



The summer activity program is designed to appeal to families as well as single students. With few exceptions, the summer activity fee covers the cost of all activities. Book displays in special interest fields are scheduled and specialists in several fields are often in residence for several days.

The Summer Session Bulletin is published each year about April 1. It contains complete information about offerings, class schedules, enrollment procedures, degree programs and housing. A copy will be sent on request. Pre-enrollment is encouraged and generally takes place between April 1 and May 1.

## PHYSICAL FACILITIES

### BUILDINGS AND GROUNDS

Stout State University's 102 acre campus is located along Menomonie's Lake Menomin. Eleven well equipped buildings, Harvey Hall, Bowman Hall, Ray Hall, Fryklund Hall, the Memorial Student Center, the Pierce Library, the Health and Physical Education Center and a communications building comprise the central plant. The newest facilities to be added are a \$4.5 million science and technology building, a \$1 million library addition, a \$1 million administration building and a \$200,000 child study center. Two \$4.5 million facilities, a home economics building and an applied arts building, are anticipated by 1974.

There are nine residence halls with dining facilities nearby.

### LABORATORIES AND EQUIPMENT

The laboratories for the teaching of industrial subjects are well-equipped and modern. Bowman Hall contains labs equipped for work in graphic arts, power mechanics and audio-visual communication and photography as well as laboratories and lecture rooms for courses in the arts and sciences. Fryklund Hall, constructed in 1961, contains metalworking and auto mechanics labs, electronics laboratories, a general industrial arts lab, the music department, and classrooms.

The newly dedicated science and technology building houses the most recent equipment and instruments to supplement the sciences and growing areas of wood techniques, building construction, plastics, power mechanics and industrial graphics. This completely air conditioned facility provides numerous opportunities for group and individual learning experiences.

The home economics laboratories in Harvey Hall are completely modern and well equipped. Laboratories used for home furnishings, food science and nutrition, clothing and textiles, and home economics education are housed in this building. Adequate lighting and modern furnishings and equipment allow effective instruction in pleasant and comfortable surroundings.

### LEARNING RESOURCES

Media Retrieval Services (The Robert L. Pierce Library) has a print collection of over 120,000 volumes; nearly 13,500 microforms of various types; subscribes to over 1,300 periodicals; and circulates approximately



1,000 films, tapes, records and slides. Media retrieval resources are interspersed with 960 carrel and table spaces for the convenience of users. In addition to space for public and technical services, the 78,000 square foot building also houses the Educational Materials Center and the Area Research Center (State Historical Society of Wisconsin) for Dunn and Barron Counties.

Instructional Technology Services are housed in the communications building. Professional media specialists are available for consultation with students and faculty concerning the utilization, selection, procurement, design and production of instructional media. Graphics, still photography, motion picture production, television and sound recording services are housed in the 18,000 square foot area.

## CHILD AND FAMILY STUDY CENTERS

The Child and Family Study Centers offer unique opportunities for observation and participation with preschool children. The centers, staffed and directed by the Department of Human Development, Family Living and Community Educational Services operates throughout the school year. Faculty offices, parent rooms and a resource center are also located in the centers. A unique playground is being developed in conjunction with each building.

## AUDITORIUMS

Two auditoriums provide forums for convocations and student concerts and productions as well as traveling programs and nationally known speakers. One of the wings of Harvey Hall houses a modern auditorium with a seating capacity of 800. The Health and Physical Education Center includes a fieldhouse auditorium which will seat in excess of 3,000.

## COURSES OF STUDY



### MAJOR PROGRAMS

Program plans which appear on the following pages should be considered guides to courses and requirements necessary for graduation. Minor changes occur in programs from time to time. These changes are reflected in program guide sheets issued once each year. Entering students must meet the program requirements for graduation listed on the guide sheets—not the requirements listed here—although both will be similar.

### AMERICAN INDUSTRY

American Industry is a new approach to industrial arts. It places emphasis on understanding industry through involvement in functions common to all industries such as production, management and marketing. The American Industry curriculum prepares a student to teach American Industry at the junior and senior high school levels. There is an increasing demand for teachers of American Industry both statewide and nationally.

The college program involves completion of one of the following options:

1. A major in American Industry with an approved 22 credit minor.
2. A major in American Industry with no minor. Elective credits distributed to enhance the student's own objectives.
3. A double major—American Industry and another recognized major. This option is worked out on an individual basis between the student, his American Industry advisor and the advisor from the second major.

The major in American Industry may be elected during the freshman or sophomore years. Both men and women are encouraged to apply for admission. Should a student choose to enter the American Industry program after the sophomore year, he should do so only after consultation with the American Industry Program Director.

## GENERAL REQUIREMENTS — B. S. DEGREE:

|                                   |               |
|-----------------------------------|---------------|
| Total for graduation .....        | 130 credits   |
| Required in liberal studies ..... | 55-56 credits |
| Required in the major .....       | 34 credits    |
| Required in education .....       | 20 credits    |
| Electives .....                   | 20-21 credits |

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 55-56 credits required

| Course                                                      | Credit |
|-------------------------------------------------------------|--------|
| 355-120 and 121, Mathematics .....                          | 8      |
| 366-101, Personal Health .....                              | 1      |
| 367-127 or 368-128, Physical Education (men or women) ..... | 2      |
| 326-101 and 102, English .....                              | 6      |
| 387-110, Sociology .....                                    | 3      |
| 479-110, General Psychology .....                           | 3      |
| 391-100, Speech .....                                       | 2      |
| 365-201, Introduction to Philosophy .....                   | 3      |
| 372-221, Mechanics and Electricity .....                    | 5      |
| 311-115, Inorganic Chemistry .....                          | 5      |
| 360—, Music elective .....                                  | 2      |
| 375-210, Government .....                                   | 3      |
| 391-232, 391-334, 391-336 or 391-338, Theatre Course .....  | 2-3    |
| 326—, Literature elective .....                             | 3      |
| 308-122, Biology .....                                      | 3      |
| 304-101, 304-202 or 304-322, Art (select one) .....         | 2-3    |
| 338-210, Modern World .....                                 | 3      |

### MAJOR STUDIES — 34 credits required

|                                           |   |
|-------------------------------------------|---|
| 150-115, Structures and Concepts .....    | 2 |
| 170-101, Processes I .....                | 4 |
| 130-100, Communications .....             | 2 |
| 407-560, Audio Visual Communication ..... | 2 |
| 150-223, Relationships .....              | 2 |
| 110-201, Transportation .....             | 2 |



|                                              |   |
|----------------------------------------------|---|
| 150-x97, Field Experience (one summer) ..... | 2 |
| 150-410, Manufacturing Cost Analysis .....   | 3 |
| 170-310, Materials .....                     | 2 |
| 150-200, Production Management .....         | 3 |
| 309-330, Principles of Marketing .....       | 3 |
| 150-402, Physical Facilities .....           | 2 |
| 110-101, Energy in Industry .....            | 2 |
| 150-314, Production Systems .....            | 3 |

#### PROFESSIONAL EDUCATION — 20 credits required

|                                                   |    |
|---------------------------------------------------|----|
| 421-205 A-F, Professional Teacher Education ..... | 12 |
| 190-408, Student Teaching .....                   | 8  |

#### ELECTIVES — 20-21 credits

To be selected on the basis of optional programs listed above.

## APPLIED MATHEMATICS

The role of mathematics in our modern scientific-technological society is basic and essential. Mathematics and mathematical thought are recognized and valued by industry and business. Graduates with a strong mathematical preparation are in high demand.

The program in Applied Mathematics provides a strong foundation in academic mathematics essential to application and to possible graduate study. The Applied Mathematics core includes mathematical models, computer science and statistics—three areas most common in industry and business. A related core of study, industrial and business offerings, provides an orientation to these major forces in our culture. Broad offerings in liberal studies round out the undergraduate program.

#### GENERAL REQUIREMENTS — B. S. DEGREE:

|                                       |               |
|---------------------------------------|---------------|
| Total for graduation .....            | 130 credits   |
| Required in liberal studies .....     | 60 credits    |
| Required in mathematics .....         | 31-34 credits |
| Required in applied mathematics ..... | 16-19 credits |
| Required in a related core .....      | 20-23 credits |

#### PROGRAM REQUIREMENTS

##### LIBERAL STUDIES — 60 credits required

| Course                                                                                     | Credit |
|--------------------------------------------------------------------------------------------|--------|
| Fine Arts (Art, Music or Theatre) .....                                                    | 4      |
| English (326-101 and 102, or 326-111 and 112, and at least one course in literature) ..... | 12     |
| Physical Education (366-101 and 366-127 or 368-128) .....                                  | 3      |
| Psychology .....                                                                           | 3      |
| Science (Biology, Chemistry, Physics or a combination) .....                               | 16     |

|                                                                                                                                                                    |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Social Science (Two of the following disciplines in addition to six credits in Economics: Anthropology, Geography, History, Sociology, or Political Science) ..... | 12 |
| Speech (391-100) .....                                                                                                                                             | 2  |
| Electives (Philosophy, Foreign Language or any of the above areas) .....                                                                                           | 8  |

#### MAJOR STUDIES — 47-50 credits required

##### *Basic Mathematics Core — 31-34 credits*

|                                                                                          |    |
|------------------------------------------------------------------------------------------|----|
| 355-156 and 157, Calculus and Analytic Geometry I & II .....                             | 10 |
| 355-255, Differential Equations .....                                                    | 3  |
| 355-265, Modern Geometry .....                                                           | 3  |
| 355-275, Linear Algebra .....                                                            | 3  |
| 355-331, Probability Theory .....                                                        | 3  |
| 355-370, Modern Algebra I .....                                                          | 3  |
| 355-450 and 451, Real Analysis I & II .....                                              | 6  |
| Electives may be selected from 355-371, Modern Algebra II or 355-460, Complex Variables. |    |

##### *Applied Mathematics — 16-19 credits*

|                                                               |     |
|---------------------------------------------------------------|-----|
| 354-490 and 491, Mathematics Models I & II .....              | 4   |
| <i>Select balance of required credits from the following:</i> |     |
| 354-130, Computational Statistics .....                       | 2   |
| 354-141, Digital Computer Programming .....                   | 2   |
| 354-240, Intermediate Computer Programming .....              | 3   |
| 354-241, Assembly Language Programming .....                  | 2   |
| 354-332, Mathematical Statistics .....                        | 3   |
| 354-430 and 431, Industrial Statistics I & II .....           | 4   |
| 354-245, Numerical Methods or .....                           | 2   |
| 354-445, Numerical Analysis .....                             | 2-3 |

##### *Related Core Concentrations — 20-23 credits*

Each student must select a related core from the following: Production Management; Electronics with elective areas of Control, Circuit, Computer or Communication; Business Administration with elective areas of Economics, Finance, Marketing or Data Processing.

#### ELECTIVES:

While completing an Applied Mathematics major and a related core, a student may complete the requirements for a minor in Computer Science, Business Administration, Physics, Chemistry or Biology.

## ART

The Art program curriculum provides students with appropriate experience in studio work, art history and liberal studies. It also offers basic and broad experiences for those who pursue goals in higher education or specific design fields. The program entails extensive work in major studio areas and provides the needed breadth of experience during the freshman and sophomore years. It permits numerous elective courses during the junior and senior years, enabling the student to become involved in depth, with a studio area of his choice. Students enjoy considerable flexibility in

determining a program suitable to their interests. Elective choices may be made from departmental offerings or from appropriate courses offered by other departments. The art history and liberal studies requirements, considered essential for the education of the artist, are also elective in nature with broad offerings in both areas. A 2.25 grade point is necessary for graduation. Students earn a Bachelor of Science degree upon successful completion of the program. All Art majors are required to present an exhibition (one-man or group show) of their work during their senior year.

## GENERAL REQUIREMENTS — B. S. DEGREE:

|                                   |               |
|-----------------------------------|---------------|
| Total for graduation .....        | 132 credits   |
| Required in liberal studies ..... | 47-49 credits |
| Required in major .....           | 76 credits    |
| Electives .....                   | 9 credits     |

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 47-49 credits required

| Course                                                                                                                 | Credit |
|------------------------------------------------------------------------------------------------------------------------|--------|
| English (326-101 and 102, or 326-111 and 112, and 326-250) .....                                                       | 9      |
| Speech (391-100) .....                                                                                                 | 2      |
| Art (304-522 and 304-607) .....                                                                                        | 6      |
| Science-Mathematics core or equivalent .....                                                                           | 4-6    |
| Physical Education (367-127 or 368-128) .....                                                                          | 2      |
| <i>Select 8-10 credits from the following areas: Literature, Foreign Language, Philosophy or Speech.</i>               |        |
| <i>Select 8-10 credits from the following areas: Science, Mathematics or Psychology.</i>                               |        |
| <i>Select 8-10 credits from three of the four following areas: History, Sociology, Economics or Political Science.</i> |        |

### MAJOR STUDIES\* — 76 credits required

|                                       |    |
|---------------------------------------|----|
| 304-101, Fundamentals of Design ..... | 3  |
| 304-100, Drawing .....                | 3  |
| 304-500, Drawing .....                | 3  |
| 304-513, Ceramics .....               | 3  |
| 304-514, Ceramics .....               | 3  |
| 304-509, Painting .....               | 3  |
| 304-510, Painting .....               | 3  |
| 304-511, Sculpture .....              | 3  |
| 304-512, Sculpture .....              | 3  |
| 304-515, Art Metal .....              | 3  |
| 304-516, Art Metal .....              | 3  |
| 304-517, Printmaking .....            | 3  |
| 304-518, Printmaking .....            | 3  |
| 304-501, Life Drawing .....           | 3  |
| 304-502, Life Drawing .....           | 3  |
| Art History electives .....           | 15 |
| Studio electives .....                | 19 |



**ELECTIVES — 9 credits**

From Liberal Studies courses offered at Stout or those approved for transfer.

\*Two semesters of study in each major studio area are required. However, students are permitted to omit the second semester of any one studio area with the exceptions of 304-500, Drawing, and 304-502, Life Drawing.

**ART EDUCATION**

The Art Education program offers a curriculum designed to provide broad experience in studio areas, art history and liberal studies, as well as appropriate experience in Art Education. Much of the program is of an elective nature, permitting the individual to develop a course of study suitable to his needs and to gain depth in areas of his choice. No distinction is made between Art (non-teaching) and Art Education students during the first two years of study; the Art core and liberal studies requirements are the same for both programs.

A student must decide by his junior year which program he intends to pursue; education courses are taken at that time, followed by a semester of student teaching during the senior year. Art education theory courses and student teaching are taken concurrently and comprise a full semester's study.

Successful completion of the Art Education program qualifies the graduate for certification by the State Department of Public Instruction for teaching and supervision in elementary and secondary schools. A 2.25 grade point is required for admission to the Art Education sequence. Students who complete the program receive a Bachelor of Science degree. All art majors are required to present an exhibition (one-man or group show) of their work during their senior year.

**GENERAL REQUIREMENTS — B. S. DEGREE:**

|                                   |             |
|-----------------------------------|-------------|
| Total for graduation .....        | 130 credits |
| Required in liberal studies ..... | 50 credits  |
| Required in major .....           | 60 credits  |
| Professional education .....      | 20 credits  |

**PROGRAM REQUIREMENTS****LIBERAL STUDIES — 50 credits required**

| Course                                                           | Credit |
|------------------------------------------------------------------|--------|
| English (326-101 and 102, or 326-111 and 112, and 326-250) ..... | 9      |
| Speech (391-100) .....                                           | 2      |
| Art (304-522 and 304-607) .....                                  | 6      |

|                                                                                                                        |     |
|------------------------------------------------------------------------------------------------------------------------|-----|
| Science-Mathematics core or equivalent .....                                                                           | 4-6 |
| Physical Education (367-127 or 368-128) .....                                                                          | 2   |
| <i>Select 8-10 credits from the following areas: Literature, Foreign Language, Philosophy or Speech.</i>               |     |
| <i>Select 8-10 credits from the following areas: Science, Mathematics or Psychology.</i>                               |     |
| <i>Select 8-10 credits from three of the four following areas: History, Sociology, Economics or Political Science.</i> |     |

#### MAJOR STUDIES\* — 60 credits required

|                                       |    |
|---------------------------------------|----|
| 304-101, Fundamentals of Design ..... | 3  |
| 304-100, Drawing .....                | 3  |
| 304-500, Drawing .....                | 3  |
| 304-501, Life Drawing .....           | 3  |
| 304-513, Ceramics .....               | 3  |
| 304-514, Ceramics .....               | 3  |
| 304-509, Painting .....               | 3  |
| 304-510, Painting .....               | 3  |
| 304-511, Sculpture .....              | 3  |
| 304-512, Sculpture .....              | 3  |
| 304-515, Art Metal .....              | 3  |
| 304-516, Art Metal .....              | 3  |
| 304-517, Printmaking .....            | 3  |
| 304-518, Printmaking .....            | 3  |
| Art History electives .....           | 9  |
| Studio electives .....                | 12 |

#### PROFESSIONAL EDUCATION — 20 credits required

|                                                                   |   |
|-------------------------------------------------------------------|---|
| 421-303, Educational Psychology .....                             | 2 |
| 421-422, Principles of Secondary Education .....                  | 2 |
| 405-608, Introduction to Teaching Art in Elementary Schools ..... | 3 |
| 405-609, Introduction to Teaching Art in Secondary Schools .....  | 3 |
| 405-611, Curriculum Development .....                             | 2 |
| 405-610, Student Teaching .....                                   | 8 |

\*Two semesters of study in each major studio area are required. However, students are permitted to omit the second semester of any one studio area with the exceptions of 304-500 Drawing and 304-502, Life Drawing.

## BUSINESS ADMINISTRATION

The four-year curriculum leads to a Bachelor of Science degree with a major in General Business Administration. Upon graduation, a student selecting this major would be academically qualified to: operate a small business; secure a position in a large corporate enterprise in the fields of sales, finance or management; or attend a graduate school in Business Administration to prepare for a higher-level position in business or industry.

## GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 130 credits
  - Required in liberal studies ..... 60 credits
  - Required in major ..... 64 credits
  - Electives ..... 6 credits
2. The student must fulfill the English adequacy and speech proficiency requirements.

## PROGRAM REQUIREMENTS

## LIBERAL STUDIES — 60 credits required

| Course                                                                                                                                                                                          | Credit |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Fine Arts (304-101, 360-153, or 391-232) .....                                                                                                                                                  | 6      |
| English (326-101 and 102, or 326-111 and 112, and at least one course in literature) .....                                                                                                      | 12     |
| Mathematics (355-118 or 355-120 or 355-156) .....                                                                                                                                               | 4      |
| Physical Education (366-101 and 367-127 or 368-128) .....                                                                                                                                       | 3      |
| Science (Biology, Chemistry, Physics or a combination) .....                                                                                                                                    | 8      |
| Speech (391-100) .....                                                                                                                                                                          | 2      |
| Psychology (479-110) .....                                                                                                                                                                      | 3      |
| Social Science (selected from at least three of the following disciplines including at least three credits in History: Anthropology, Geography, History, Sociology, or Political Science) ..... | 12     |
| Electives (Philosophy, Foreign Language or any of the above areas) .....                                                                                                                        | 10     |

## MAJOR STUDIES — 64 credits required

|                                                                                                     |   |
|-----------------------------------------------------------------------------------------------------|---|
| 309-206 and 207, Principles of Accounting .....                                                     | 6 |
| 320-210 and 320-215, Principles of Economics .....                                                  | 6 |
| 355-121, 354-141 or 354-240 or 241, Mathematics .....                                               | 4 |
| 150-200, Production Management .....                                                                | 3 |
| 309-245, Business Data Processing .....                                                             | 3 |
| 309-297, Coordinated Field Experience .....                                                         | 2 |
| 309-304, Principles of Business Management .....                                                    | 3 |
| 309-318, Business Law .....                                                                         | 3 |
| 309-325, Business Statistics .....                                                                  | 3 |
| 309-330, Principles of Marketing .....                                                              | 3 |
| 309-340, Business Finance .....                                                                     | 3 |
| 309-335, Managerial Accounting .....                                                                | 3 |
| 309-601, Regulation of Industry .....                                                               | 3 |
| 309-690, Administrative and Business Policies .....                                                 | 3 |
| 320-601, Managerial Economics .....                                                                 | 3 |
| 479-582, Personnel Management .....                                                                 | 3 |
| <i>Select 10 credits from an approved list of Business Administration and related area courses.</i> |   |

## ELECTIVES — 6 credits

From courses offered at Stout or those approved for transfer.



## CHILD DEVELOPMENT AND FAMILY LIFE

Child Development and Family Life is a four-year (non-teaching) degree program leading to a Bachelor of Science degree. Graduates of this program become qualified for positions in the area of child and family services, social welfare agencies, character development and recreation programs, sex education and family life education. A secondary purpose of the program is to prepare graduates for advanced study in order to fill positions in research, university teaching or professional consultation in child development, family life and related areas.

The primary emphasis of the program is to prepare graduates who will be able to work effectively with groups and individuals of all ages in helping them to understand and cope with the contemporary societal pressures of the family and on individuals.

### GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 128 credits
  - Required in liberal studies ..... 51 credits
  - Required in major ..... 30 credits
  - Required in minor (Psychology or Sociology) ..... 22 credits
  - Electives ..... 25 credits
2. Students in Child Development and Family Life minor in Psychology or Sociology, depending on their special needs and interests. Those who are primarily interested in Family Life should minor in Sociology, and those who are primarily concerned with Child Development should minor in Psychology.

### PROGRAM REQUIREMENTS

#### LIBERAL STUDIES — 51 credits required

| Course                                                                                                                                                                                              | Credit |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 308-342 or 366-101, Hygiene or Health .....                                                                                                                                                         | 1      |
| 326-101, English .....                                                                                                                                                                              | 3      |
| 326-102, English .....                                                                                                                                                                              | 3      |
| 326—, Literature elective excluding 326-300 .....                                                                                                                                                   | 3      |
| 355-120, College Mathematics or equivalent .....                                                                                                                                                    | 4      |
| 367— or 368—, Physical Education elective .....                                                                                                                                                     | 2      |
| 479-110, General Psychology or equivalent .....                                                                                                                                                     | 3      |
| Select 10 credits from among two or more of the following areas: Art, Foreign Language (two semesters), Music, Philosophy, Speech or Theatre (excluding courses in Theatre Workshop or Stagecraft). |        |
| Select eight credits from among the following areas: Biology, Chemistry, Physics or 375-210, Government.                                                                                            |        |
| Select nine credits from among the following areas: Anthropology, Economics, Geography, History, Political Science, Sociology and Social Work or 391-100, Fundamentals of Speech.                   |        |

#### MAJOR STUDIES — 30 credits required

|                                       |   |
|---------------------------------------|---|
| 212-124, Child Development I .....    | 3 |
| 212-250, Family Relationships I ..... | 3 |

|                                                              |   |
|--------------------------------------------------------------|---|
| 212-264, Child Guidance .....                                | 2 |
| 212-626, Special Topics in the Study of Family Life .....    | 3 |
| <i>Select 19 credits from the following:</i>                 |   |
| 212-407, Parent Education .....                              | 2 |
| 212-324, Child Development II .....                          | 3 |
| 212-342, Creative Activities for Young Children .....        | 3 |
| 212-624, Advanced Child Study .....                          | 3 |
| 212-535, Seminar in Self-Growth .....                        | 2 |
| 212-637, Seminar in Child Development .....                  | 2 |
| 212-665, Administration of ECE Programs .....                | 2 |
| 212-685, The Culturally Disadvantaged Child and Family ..... | 3 |
| 229-212, Nutrition .....                                     | 3 |
| 245-306, Home Management Theory .....                        | 3 |
| 245-360, Consumer Economics .....                            | 3 |
| 308-132, Physiology and Anatomy .....                        | 4 |
| 308-342, Community Hygiene .....                             | 2 |
| 308-332, Genetics .....                                      | 2 |
| 354-130, Computational Statistics .....                      | 2 |
| 354-141, Digital Computer Programming .....                  | 2 |
| 387-215, Sociology of the Family .....                       | 3 |

#### RESTRICTED ELECTIVES — 22 credits required

Courses must be selected from Psychology or Sociology for minor requirements.

#### ELECTIVES — 25 credits

From courses offered at Stout or those approved for transfer.

## CLOTHING, TEXTILES AND DESIGN

The Clothing, Textiles and Design program provides an education in fabric and clothing construction and leads to a Bachelor of Science degree. This four-year program is designed to develop competencies in clothing construction and an understanding of fabric characteristics, manufacturing and design. In addition to an indepth clothing and textile concentration, students are given a broad cluster of general educational experiences.

Career opportunities for a graduate in the Clothing, Textiles and Design program include: flat pattern designing; sales management; department management; fabric store supervision; technical-vocational teaching; new products evaluation; extension service; public relations; technical sales and fabric coordinator.

#### GENERAL REQUIREMENTS — B. S. DEGREE:

|                                   |               |
|-----------------------------------|---------------|
| Total for graduation .....        | 128 credits   |
| Required in liberal studies ..... | 46-47 credits |

|                         |               |
|-------------------------|---------------|
| Required in major ..... | 53-54 credits |
| Free electives .....    | 27-29 credits |

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 46-47 credits required

| Course                                                  | Credit |
|---------------------------------------------------------|--------|
| 304-101, Fundamentals of Design .....                   | 3      |
| 304-504, Interior Design .....                          | 3      |
| 308-132, Physiology and Anatomy .....                   | 4      |
| 311-115, Chemistry .....                                | 5      |
| 320-201, General Economics .....                        | 3      |
| 326-101, English .....                                  | 3      |
| 326-102, English .....                                  | 3      |
| 326-346 or 326-410, Expository or Feature Writing ..... | 3      |
| 326—, Literature elective .....                         | 3      |
| 338—, History elective .....                            | 3      |
| 368—, Physical Education elective .....                 | 2      |
| 387-110, Introductory Sociology .....                   | 3      |
| 391-100, Fundamentals of Speech .....                   | 2      |
| 479-110, General Psychology .....                       | 3      |
| 355—, Mathematics elective .....                        | 4      |

### MAJOR STUDIES — 53-54 credits required

|                                                                |   |
|----------------------------------------------------------------|---|
| 212-124, Child Development I .....                             | 3 |
| 212-250, Family Relationships I .....                          | 3 |
| 214-110, Male-Female Apparel .....                             | 1 |
| 214-117, Clothing and Behavior .....                           | 1 |
| 214-140, Textiles I .....                                      | 3 |
| 214-266, Apparel Construction .....                            | 3 |
| 214-466, Couture Techniques .....                              | 2 |
| 214-225, Clothing and Textile Industry .....                   | 3 |
| 214-580 or 212-680, Flat Pattern Design or Draping .....       | 3 |
| 214-319, Economics of Family Clothing .....                    | 3 |
| 214-640, Textiles II .....                                     | 2 |
| 214-695, Decorative Fabrics .....                              | 2 |
| 214-666, Tailoring .....                                       | 3 |
| 214-610, History of Costume: Ancient to European 1900 or ..... | 3 |
| 214-611, History of American Costume .....                     | 2 |
| 214-617, Social Psychological Aspects of Clothing .....        | 3 |
| 214-402, Clothing and Textile Problems .....                   | 2 |
| 229-124, Foods .....                                           | 2 |
| 229-125, Food Practicum .....                                  | 2 |
| 229-212, Nutrition .....                                       | 3 |
| 245-360, Consumer Economics .....                              | 3 |
| 245-306, Home Management Theory .....                          | 3 |

### ELECTIVES — 27-29 credits

From courses offered at Stout or those approved for transfer.



## DIETETICS

This program will provide the academic background for a career as a therapeutic dietitian, administrative dietitian or nutrition educator. In a 1971 listing of occupations where shortages exist, the field of Dietetics ranked fourth.

The Dietetics student receives an education with equal emphasis on the following sciences: physical and biological; behavioral and social; communication and professional. With this balance the student can move toward the more technical or the more general areas of Dietetics.

### GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 128 credits  
     Required in liberal studies ..... 54 credits  
     Major requirements ..... 55-61 credits  
     Electives ..... 13-19 credits
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by those departments.
3. Work experience may be obtained through participation in the Field Experience program.
4. To be admitted to candidacy in Dietetics a grade of "C" (2.00) is required in the following courses: 229-212, 229-240, 308-132 and 311-201; a cumulative grade point average of "C" (2.00) in 326-102, 391-100, 387-110 and 479-110.

### PROGRAM REQUIREMENTS

#### LIBERAL STUDIES — 54 credits required

| Course                                          | Credit |
|-------------------------------------------------|--------|
| 311-115, Chemistry .....                        | 5      |
| 320-201, General Economics .....                | 3      |
| 326-101, English .....                          | 3      |
| 326-102, English .....                          | 3      |
| 326—, Writing elective .....                    | 3      |
| 367— or 368—, Physical Education elective ..... | 2      |
| 387-110, Introductory Sociology .....           | 3      |
| 391-100, Fundamentals of Speech .....           | 2      |
| 421-303, Educational Psychology .....           | 2      |
| 242-320, Methods of Teaching .....              | 2      |
| 479-110, General Psychology .....               | 3      |
| 479-582, Personnel Management .....             | 3      |

*Select five credits from the following areas: Biology, Chemistry, Geography, Physics or 214-140, Textiles I.*

*Select 15 credits from five of the following areas: Child Development and Family Life, Anthropology, Art, Literature, French (two semesters), History, Music, Philosophy, Political Science, Theatre (excluding Stagecraft) or 214-617, Social Psychological Aspects of Clothing.*

#### MAJOR STUDIES — 55-61 credits required

|                          |   |
|--------------------------|---|
| 229-212, Nutrition ..... | 3 |
|--------------------------|---|

|                                                     |   |
|-----------------------------------------------------|---|
| 229-240, Food Science .....                         | 3 |
| 229-410, Nutrition and Dietetics .....              | 3 |
| 229-318, Meal Management Practicum .....            | 2 |
| 229-618, Diet Therapy .....                         | 3 |
| 245-501, Food Service Administration .....          | 3 |
| 245-513, Quantity Food Production and Service ..... | 2 |
| 245-222, Institutional Food Purchasing .....        | 2 |
| 308-132, Physiology and Anatomy .....               | 4 |
| 308-206, General Microbiology .....                 | 4 |
| 311-201, Organic Chemistry .....                    | 4 |
| 311-511, Biochemistry .....                         | 3 |
| 354-130, Computational Statistics .....             | 2 |
| 229-638, Experimental Foods or .....                | 3 |
| 229-661, Social and Cultural Aspects of Food .....  | 2 |

*Select either:*

|                                                          |   |
|----------------------------------------------------------|---|
| _____, Mathematics (three years of high school) or ..... | 0 |
| 355-____, Mathematics elective .....                     | 4 |

*Select either:*

|                                           |   |
|-------------------------------------------|---|
| 130-100, Communications or .....          | 2 |
| 407-560, Audio-Visual Communication ..... | 2 |

*Select one of the following courses:*

|                                             |   |
|---------------------------------------------|---|
| 309-206, Principles of Accounting or .....  | 3 |
| 309-245, Business Data Processing or .....  | 3 |
| 354-141, Digital Computer Programming ..... | 2 |

*Select five credits from the following courses:*

|                                                                     |   |
|---------------------------------------------------------------------|---|
| 150-150, Industrial Organization .....                              | 2 |
| 150-530, Human Factors Engineering .....                            | 3 |
| 229-418, Advanced Meal Management Practicum .....                   | 2 |
| 229-633, Maternal and Child Nutrition .....                         | 3 |
| 245-521, Food Service Equipment .....                               | 2 |
| 229-____, Any advanced Nutrition course not previously listed ..... |   |

*Select six credits from either Sociology or Psychology or from the following three courses in Economics: 320-210, 320-215 or 320-420.*

## ELECTIVES — 13-19 credits

Completion of electives may be met by a minor; two concentrations of at least 15 credits each; or by selecting freely from any course work offered by the University.

## EARLY CHILDHOOD EDUCATION

The Early Childhood Education program prepares persons to teach in kindergartens, nursery schools, or day care centers; to work in child and family service agencies or governmental programs; and/or to enter graduate study in Early Childhood Education, Child Development and Family Life or other related fields.

Graduates of Stout's Early Childhood Education program become certified for nursery-kindergarten (N-K) in Wisconsin and nursery through grade 3 in some other states.

## GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 128 credits
  - Required in liberal studies ..... 51 credits
  - Required in major ..... 53 credits
  - Electives ..... 24 credits
2. To qualify for admission into 212-204—Introduction to Teaching Early Childhood Education (and the ECE program), students must have achieved a 2.00 grade point average and must have attained a “C” or better in 212-124—Child Development, 212-264—Child Guidance and 479-110—General Psychology. Students must achieve a “C” or better in all of the required courses for the major and must maintain an overall GPA of 2.00.
3. Upon entrance to 212-408A—Student Teaching in Early Childhood Centers, students must have on file a current physical health examination certificate.
4. Students in Early Childhood Education must demonstrate English composition and speech proficiency by obtaining a “C” or better in English 102 or its equivalent (or achieve a proficiency rating on an English proficiency test), and pass a speech proficiency test before they become certified for teaching.

## PROGRAM REQUIREMENTS

## LIBERAL STUDIES — 51 credits required

| Course                                              | Credit |
|-----------------------------------------------------|--------|
| 308-342, Community Hygiene .....                    | 2      |
| 326-101, English .....                              | 3      |
| 326-102, English .....                              | 3      |
| 326—, Literature elective, excluding 326-300 .....  | 3      |
| 355-118 or 355-120, Mathematics or equivalent ..... | 4      |
| 367— or 368—, Physical Education elective .....     | 1      |
| 479-110, General Psychology .....                   | 3      |

*Select 10 credits from among two or more of the following areas: Art, Foreign Language (two semesters), Music, Philosophy, Speech or Theatre (excluding courses in Theatre Workshop or Stagecraft).*

*Select eight credits from among the following areas: Biology, Chemistry or Physics.*

*Select nine credits from among the following areas: Anthropology, Economics, Geography, History, Political Science, Sociology and Social Work or 391-100, Fundamentals of Speech.*

## MAJOR STUDIES — 53 credits required

|                                                        |   |
|--------------------------------------------------------|---|
| 212-124, Child Development .....                       | 3 |
| 212-250, Family Relationships I .....                  | 3 |
| 212-264, Child Guidance .....                          | 2 |
| 212-407, Parent Education .....                        | 2 |
| 212-342, Creative Activities for the Young Child ..... | 3 |
| 326-300, Children's Literature .....                   | 3 |



|                                                              |   |
|--------------------------------------------------------------|---|
| 360-134, Rudiments of Music .....                            | 1 |
| 407-560, Audio-Visual Communication .....                    | 2 |
| 212-204, Introduction to Teaching ECE .....                  | 3 |
| 212-303, Curriculum I .....                                  | 2 |
| 212-333, Curriculum II .....                                 | 2 |
| 212-433, Curriculum III .....                                | 2 |
| 212-408A, Student Teaching Nursery School .....              | 4 |
| 212-408B, Kindergarten or .....                              | 4 |
| 212-488, Intern Teaching .....                               | 8 |
| 212-665, Administration of ECE Programs .....                | 2 |
| 479-562, Psychology of Exceptional Child .....               | 2 |
| <i>Select 13 credits from among the following courses:</i>   |   |
| 212-324, Child Development II .....                          | 3 |
| 212-350, Family Relationships II .....                       | 3 |
| 212-624, Advanced Child Study .....                          | 3 |
| 212-535, Seminar in Self-Growth .....                        | 2 |
| 212-685, The Culturally Disadvantaged Child and Family ..... | 3 |
| 229-212, Nutrition .....                                     | 3 |
| 360-100, Applied Music .....                                 | 1 |
| 421-505, History of Education .....                          | 2 |
| 421-303, Educational Psychology .....                        | 2 |
| 479-530, Psychology of Learning .....                        | 3 |

#### ELECTIVES — 24 credits

From courses offered at Stout or those approved for transfer.

## FASHION MERCHANDISING

The four-year Fashion Merchandising program focuses on fashion and business administration. Under the objectives of the program, the student develops an understanding of the fashion field, an appreciation of fashion and fashion design, and a broad knowledge of fabrics; obtains a business background in marketing, sales, merchandising, management and advertising; and acquires a broad educational background in science, mathematics, social science, art, English and communication. In addition to a major in Fashion Merchandising, the degree carries a minor in Business Administration.

Included in the list of Fashion Merchandising career possibilities are: fashion coordinator; buyer; training manager; divisional merchandising manager; youth fashion coordinator; sales manager; stock controller; store manager and resident buyer.

#### GENERAL REQUIREMENTS — B. S. DEGREE:

|                                   |             |
|-----------------------------------|-------------|
| Total for graduation .....        | 128 credits |
| Required in liberal studies ..... | 25 credits  |

|                            |               |
|----------------------------|---------------|
| Required in major .....    | 60-61 credits |
| Restricted electives ..... | 24-26 credits |
| Electives .....            | 16-19 credits |

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 25 credits required

| Course                                          | Credit |
|-------------------------------------------------|--------|
| 304-101, Fundamentals of Design .....           | 3      |
| 320-210, Principles of Economics I .....        | 3      |
| 320-211, Principles of Economics II .....       | 3      |
| 326-101, English .....                          | 3      |
| 326-102, English .....                          | 3      |
| 367— or 368—, Physical Education elective ..... | 2      |
| 387-110, Introductory Sociology .....           | 3      |
| 391-100, Fundamentals of Speech .....           | 2      |
| 479-110, General Psychology .....               | 3      |

### MAJOR STUDIES — 60-61 credits required

|                                                                |     |
|----------------------------------------------------------------|-----|
| 150-150, Industrial Organization .....                         | 2   |
| 214-120, Apparel Principles .....                              | 3   |
| 214-140, Textiles I .....                                      | 3   |
| 214-225, Clothing and Textile Industry .....                   | 3   |
| 214-x98, Field Experience .....                                | 2-6 |
| 214-319, Economics of Clothing .....                           | 3   |
| 214-325, Fashion Merchandising I .....                         | 3   |
| 214-429, Textile Economics .....                               | 3   |
| 214-425, Fashion Merchandising II .....                        | 3   |
| 214-610, History of Costume: Ancient to European 1900 or ..... | 3   |
| 214-611, History of American Costume .....                     | 2   |
| 214-617, Social Psychological Aspects of Clothing .....        | 3   |
| 245-360, Consumer Economics .....                              | 3   |
| 309-206, Principles of Accounting .....                        | 3   |
| 309-207, Principles of Accounting .....                        | 3   |
| 309-304, Principles of Business Management .....               | 3   |
| 309-330, Principles of Marketing .....                         | 3   |
| 309-334, Salesmanship and Sales Management .....               | 3   |
| 309-323, Retail Merchandising and Management .....             | 3   |
| 309-370, Principles of Advertising .....                       | 3   |
| 309—, Business electives .....                                 | 3   |
| 479-582, Personnel Management .....                            | 3   |

### RESTRICTED ELECTIVES — 24-26 credits required

Electives must be selected from each of the following areas: Writing, 2-3 credits; Art, Literature, History or Political Science, 3 credits; Mathematics, 4 credits; Music, Philosophy, Theatre or Foreign Language, 4-5 credits; Biology, Chemistry or Physics, 5 credits.

### ELECTIVES — 16-19 credits

From courses offered at Stout or those approved for transfer.

## FOOD SERVICE ADMINISTRATION

The program in Food Service Administration provides the academic background for a career as an administrator in large quantity food production and service facilities. The areas in which a food service administrator would be concerned with serving nutritional diets to large groups of people (100 or more) would be industrial feeding; airline feeding; school food service; university food service; nursing home and hospital food service; day care and geriatric centers food service; fast food service; commissary food production; vending food operation and super-market management.

### GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 128 credits
  - Required in liberal studies ..... 78 credits
  - Required in major ..... 32 credits
  - Electives ..... 18 credits
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.
4. A cumulative grade point average of 2.00 is required in the following courses: 308-122, 308-132, 308-206, 311-115, 311-201 and 229-240 for a student to be admitted to candidacy in the Food Service Administration program.

### PROGRAM REQUIREMENTS

#### LIBERAL STUDIES — 78 credits required

| Course                                             | Credit |
|----------------------------------------------------|--------|
| 304-101, Fundamentals of Design .....              | 3      |
| 308-122, General Biology .....                     | 3      |
| 308-132, Physiology and Anatomy .....              | 3      |
| 308-206, General Microbiology .....                | 3      |
| 309-206, Principles of Accounting .....            | 3      |
| 309-207, Principles of Accounting .....            | 3      |
| 309-318, Business Law .....                        | 3      |
| 311-115, Chemistry .....                           | 5      |
| 311-201, Organic Chemistry .....                   | 4      |
| 320-201, General Economics .....                   | 3      |
| 326-101, English .....                             | 3      |
| 326-102, English .....                             | 3      |
| 326-346, Expository Writing .....                  | 3      |
| 326—, Literature elective .....                    | 3      |
| 338-210 or 338-220, History .....                  | 3      |
| 354-130, Computational Statistics .....            | 2      |
| 354-141, Digital Computer Programming .....        | 2      |
| 355-120, Introductory College Mathematics I .....  | 4      |
| 355-121, Introductory College Mathematics II ..... | 4      |
| 368-127 or 128, Physical Education elective .....  | 2      |
| 372-221, Mechanics and Electricity .....           | 5      |



|                                       |   |
|---------------------------------------|---|
| 391-100, Fundamentals of Speech ..... | 2 |
| 387-110, Introductory Sociology ..... | 3 |
| 479-110, General Psychology .....     | 3 |
| 479-582, Personnel Management .....   | 3 |

#### MAJOR STUDIES — 32 credits required

|                                                     |   |
|-----------------------------------------------------|---|
| 212-124, Child Development .....                    | 3 |
| 214-110, Male-Female Apparel .....                  | 1 |
| 214-117, Clothing and Behavior .....                | 1 |
| 214-140, Textiles I .....                           | 3 |
| 229-124, Foods .....                                | 2 |
| 229-125, Food Practicum .....                       | 2 |
| 229-212, Nutrition .....                            | 3 |
| 229-318, Meal Management Practicum .....            | 2 |
| 229-418, Advanced Meal Management Practicum .....   | 2 |
| 245-521, Food Service Equipment .....               | 2 |
| 245-501, Food Service Administration .....          | 3 |
| 245-503, Advanced Food Production Management .....  | 3 |
| 245-513, Quantity Food Production and Service ..... | 3 |
| 245-222, Institutional Food Purchasing .....        | 2 |

#### ELECTIVES — 18 credits

From courses offered at Stout or those approved for transfer.

## HOME ECONOMICS IN BUSINESS

The Home Economics in Business major is a four-year program leading to a Bachelor of Science degree. The general objective of this major is to develop competencies which will enable a person to lead a meaningful life and to function effectively as a member of business. This task is accomplished through four general areas of study: (1) Liberal studies provides broad learning experiences in art, science, English, mathematics and the behavioral sciences; (2) Major required courses develop a background in business and communications. This area also allows the student, through restricted electives, to gain a broad exposure of Home Economics in Business through courses not included in their chosen emphasis area(s); (3) Emphasis areas—a student may elect one of 11 emphasis areas taking at least the required minimum credit. An alternative permits diversification by selecting a minimum of 15 credits in each of two emphasis areas, e.g., food—minimum 15 credits, business management and administration—minimum 15 credits; and (4) Electives—depending on the number of hours required or selected in any emphasis area, there remains in the major eight to 20 hours of free electives. These electives are used to expand knowledge in an area of interest or to complete a minor. Presently a minor (22 credits) is possible in journalism and business administration.

The Home Economics in Business major prepares individuals for various careers in business and public service. Included are: public relations, extension service, sales, business management, food processing, home

equipment manufacturing, business and finance, journalism, habitational research and insurance.

## GENERAL REQUIREMENTS — B. S. DEGREE:

|                                    |               |
|------------------------------------|---------------|
| Total for graduation .....         | 128 credits   |
| Required in liberal studies .....  | 47 credits    |
| Required in major .....            | 43 credits    |
| Required in area of emphasis ..... | 18-30 credits |
| Electives .....                    | 8-20 credits  |

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 47 credits required

| Course                                                        | Credit |
|---------------------------------------------------------------|--------|
| 304-101, Fundamentals of Design .....                         | 3      |
| 308-206, Microbiology .....                                   | 4      |
| 311-115, Chemistry .....                                      | 5      |
| 320-210, Principles of Economics I .....                      | 3      |
| 320-215, Principles of Economics II .....                     | 3      |
| 326-101, English .....                                        | 3      |
| 326-102, English .....                                        | 3      |
| 326-344, Contemporary Rhetoric .....                          | 3      |
| 338— or 375—, History or government elective .....            | 3      |
| 355-118 or 355-120, Mathematics .....                         | 4      |
| 367— or 368—, Physical Education elective .....               | 2      |
| 387-110, Introductory Sociology .....                         | 3      |
| 391-100, Fundamentals of Speech .....                         | 2      |
| 479-110, General Psychology .....                             | 3      |
| <i>Select three credits from among the following courses:</i> |        |
| 212-124, Child Development .....                              | 3      |
| 303-220, Cultural Anthropology .....                          | 3      |
| 387-530, Sociology of the Community .....                     | 3      |
| 387-540, Sociology of Work .....                              | 3      |

### MAJOR STUDIES — 43 credits required

|                                                            |   |
|------------------------------------------------------------|---|
| 309-206, Principles of Accounting .....                    | 3 |
| 309-330, Principles of Marketing .....                     | 3 |
| 326-515, Technical Writing for Home Economics .....        | 3 |
| 391-208, Speech Skills for Business and Industry .....     | 2 |
| 391-554, Television Programming and Performance .....      | 3 |
| 407-560, Audio-Visual Communications .....                 | 2 |
| 421-679, Public Relations .....                            | 2 |
| 479-582, Personnel Management .....                        | 3 |
| <i>Select 22 credits from among the following courses:</i> |   |
| 212-250, Family Relationships I .....                      | 3 |
| 214-117, Clothing and Behavior .....                       | 1 |
| 214-590, Practicum in Textile Design .....                 | 3 |
| 229-124, Foods .....                                       | 2 |
| 229-125, Food Practicum .....                              | 2 |
| 229-212, Nutrition .....                                   | 3 |
| 245-306, Home Management Theory .....                      | 3 |

|                                                        |   |
|--------------------------------------------------------|---|
| 245-360, Consumer Economics .....                      | 3 |
| 245-355, Home Equipment and Household Physics .....    | 3 |
| 245-650, Family Housing .....                          | 3 |
| 245—, Introduction to Home Economics in Business ..... | 2 |
| 245-x98, Field Experience .....                        | 2 |

#### EMPHASIS BLOCKS — 18-30 credits required

To complete his program, a student can either select 15 credits from each of any two emphasis blocks listed or select the minimum number of credits specified for any one block.

|                                                 |                                            |
|-------------------------------------------------|--------------------------------------------|
| Foods — 20 cr.                                  | Non-Certification Education — 18 cr.       |
| Equipment — 20 cr.                              | Journalism — 18 cr.                        |
| Equipment, Detergent,<br>Textiles — 19 cr.      | Family Studies — 20 cr.                    |
| Business and Finance — 17 cr.                   | Statistics and Data<br>Processing — 24 cr. |
| Human Habitat — 21 cr.                          | Habitational Research — 26 cr.             |
| Business Management and Administration — 30 cr. |                                            |

#### ELECTIVES — 8-20 credits

From courses offered at Stout or those approved for transfer.

## HOME ECONOMICS EDUCATION

Although work in Home Economics Education opens many job opportunities, the greatest number of positions available to graduates with a Bachelor of Science degree in Home Economics Education includes schools, extension education and curricula development in business and industry.

Home Economics at the elementary, secondary and post secondary level has been changing and will continue to change. One of the most apparent changes in the public schools is the offering of semester courses by substantive areas rather than integrated generalized offerings. Teachers must be prepared to teach all areas in a one-teacher department, but the multi-teacher departments allow specialization. The number of single teacher home economics departments is decreasing and the number of multi-teacher departments increasing. Another change is caused by legislation by Congress. Both consumer-homemaking and occupational-oriented programs are now being reimbursed. Considerations of certification required by this legislation have been met in this program.

#### GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 128 credits
 

|                              |            |
|------------------------------|------------|
| Liberal studies .....        | 44 credits |
| Major studies .....          | 40 credits |
| Professional education ..... | 19 credits |
| Electives .....              | 25 credits |
2. There are four planning systems which encourage individualized education and allow for maximum flexibility within the guidelines for a



certifiable program of 128 credits. When planning the sequence of experiences leading to the Bachelor of Science degree with a major in Home Economics Education, the student should select and organize the classes within one of four planning systems. Depending on the program selected by the student, elective credits can be used to obtain a minor (22 credits) or specialized study (specialization 10-18 credits) within a certain area. A combination of a minor and a specialization is also possible.

3. Specializations:

**APPAREL, TEXTILES AND DESIGN**—Preparation for teaching semester or occupation-oriented courses at secondary and post-secondary levels.

**FAMILY LIFE AND CHILD DEVELOPMENT**—Preparation for teaching specialized courses at elementary, middle, secondary, and post-secondary levels. Fulfills one of the greatest contemporary needs in education. Opportunities open for both men and women.

**FOOD SERVICE AND NUTRITION**—Popular with both men and women. Preparation for teaching semester or occupational-oriented courses at secondary and post-secondary levels.

**HABITAT, EQUIPMENT AND MANAGEMENT**—Preparation for men and women to teach semester courses or become employed in business and industry. Leads to further graduate work.

**OCCUPATIONAL-ORIENTED EDUCATION**—Preparation for men and women to teach occupation-oriented programs in secondary and post-secondary schools.

**CONSUMER EDUCATION**—Preparation for teaching semester courses and gives greater depth in teaching a comprehensive program.

**EXTENSION AND COMMUNITY SERVICES**—Preparation for employment in cooperative extension education and teaching in varied community programs.

**MIDDLE SCHOOL**—Certifiable program for teaching Home Economics in the middle school.

**SLOW LEARNER**—Certifiable program for education of the slow learner in Home Economics.

**REHABILITATION**—Provides opportunities of employment for teaching Home Economics to the handicapped.

**INSTRUCTIONAL MEDIA**—Provides indepth study for use in educational settings of Home Economics. Certifiable as an audio-visual coordinator—media specialist in a single school within a system in Wisconsin.

**AVOCATIONAL INTERESTS**—Preparation for employment in schools, community programs, craft schools, workshops, campus, hospitals, special projects for the aged and other interest groups related to Home Economics knowledge and skills.

4. To qualify for student teaching, the candidate must fulfill the English adequacy and speech proficiency requirements and hold a cumulative grade point average of 2.25.

## PROGRAM REQUIREMENTS

**LIBERAL STUDIES** — 44 credits required

| Course                                | Credit |
|---------------------------------------|--------|
| 304-101, Fundamentals of Design ..... | 3      |

|                                                                                                 |   |
|-------------------------------------------------------------------------------------------------|---|
| 308-132, Physiology and Anatomy .....                                                           | 4 |
| 311-115, Introductory College Chemistry or .....                                                | 5 |
| 311-135, College Chemistry I .....                                                              | 5 |
| 320-201, General Economics .....                                                                | 3 |
| 326-101 or 326-111, English Composition .....                                                   | 3 |
| 326-102 or 326-112, English Composition .....                                                   | 3 |
| 326—, Literature elective (except 326-300) .....                                                | 3 |
| 368—, Physical Education elective .....                                                         | 2 |
| 387-110, Introductory Sociology .....                                                           | 3 |
| 391-100, Fundamentals of Speech .....                                                           | 2 |
| 479-110, General Psychology .....                                                               | 3 |
| Select 303-420, Cultural Anthropology or any three-credit course in His-<br>tory or Government. |   |
| Liberal Studies electives .....                                                                 | 8 |

#### MAJOR STUDIES — 40 credits required

|                                                                  |    |
|------------------------------------------------------------------|----|
| 212-124, Child Development .....                                 | 3  |
| 212-250, Family Relationships I .....                            | 3  |
| 212-3xx, Family Life (Mini Course) .....                         | 1  |
| 214-110, Male-Female Apparel .....                               | 1  |
| 214-140, Textiles I .....                                        | 3  |
| 214-266, Apparel Construction or .....                           | 3  |
| 214-617, Social Psychological Aspects of Clothing .....          | 3  |
| 229-124, Foods .....                                             | 2  |
| 229-212, Nutrition .....                                         | 3  |
| 229-318, Meal Management Practicum .....                         | 2  |
| 245-105, Management Functions for the Resources of Habitat ..... | 1  |
| 245-275, Management of Family Resources .....                    | 3  |
| 245-235, Human Habitat or .....                                  | 3  |
| 304-504, Interior Design .....                                   | 3  |
| Major Studies electives (minimum) .....                          | 12 |

#### PROFESSIONAL EDUCATION — 19 credits required

|                                                             |   |
|-------------------------------------------------------------|---|
| 242-101, Experimental Learning in Home Economics .....      | 1 |
| 242-240, Clinical Experiences in Micro-Teaching or .....    | 1 |
| 242-341, Clinical Experiences in Schools .....              | 1 |
| 242-301, Home Economics Curriculum .....                    | 3 |
| 242-443, Clinical Seminar in Home Economics Education ..... | 2 |
| 242-444, Practicum in Teaching Home Economics or .....      | 6 |
| 242-488, Intern Teaching in Home Economics .....            | 8 |
| Select at least six credits from the following groupings:   |   |
| 421-422, Principles of Secondary Education or .....         | 2 |
| 421-xxx, Principles of Elementary Education .....           | 2 |
| 479-260, Personality and Mental Health or .....             | 3 |
| 421-596, Mental Health in Schools .....                     | 2 |
| 421-303, Educational Psychology or .....                    | 2 |
| 479-530, Psychology of Learning .....                       | 3 |

#### ELECTIVES — 25 credits

From courses offered at Stout or those approved for transfer.

## HOME ECONOMICS GENERAL

This program provides a chance to become involved in issues facing society. This major is often used as a base of entry to a specialized area. It gives a student the background to pursue many career possibilities. Graduates may work in health and welfare agencies, communications, the extension service and national or international programs such as VISTA or the Peace Corps.

### GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 128 credits
  - Required in liberal studies ..... 47 credits
  - Required in home economics ..... 51 credits
  - Electives ..... 30 credits
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.

### PROGRAM REQUIREMENTS

#### LIBERAL STUDIES — 47 credits required

| Course                                | Credit |
|---------------------------------------|--------|
| 304-101, Fundamentals of Design ..... | 3      |
| 304-504, Interior Design .....        | 3      |
| 308-122, General Biology .....        | 3      |
| 308-132, Physiology and Anatomy ..... | 3      |
| 308-342, Community Hygiene .....      | 2      |
| 311-115, Chemistry .....              | 5      |
| 320-201, General Economics .....      | 3      |
| 326-101, English .....                | 3      |
| 326-102, English .....                | 3      |
| 326-346, Expository Writing .....     | 3      |
| 326—, Literature elective .....       | 3      |
| 338-210 or 338-220, History .....     | 3      |
| 368-128, Physical Education .....     | 2      |
| 387-110, Sociology .....              | 3      |
| 391-100, Fundamentals of Speech ..... | 2      |
| 479-110, General Psychology .....     | 3      |

#### MAJOR STUDIES — 39 credits required

|                                       |   |
|---------------------------------------|---|
| 212-124, Child Development I .....    | 3 |
| 212-250, Family Relationships I ..... | 3 |
| 212-264, Child Guidance .....         | 2 |
| 214-110, Male-Female Apparel .....    | 1 |
| 214-117, Clothing and Behavior .....  | 1 |
| 214-140, Textiles I .....             | 3 |
| 214-266, Apparel Construction .....   | 3 |
| 214-466, Couture Techniques .....     | 2 |
| 229-124, Foods .....                  | 2 |



|                                                                  |   |
|------------------------------------------------------------------|---|
| 229-125, Food Practicum .....                                    | 2 |
| 229-212, Nutrition .....                                         | 3 |
| 229-318, Meal Management Practicum .....                         | 2 |
| 229-418, Advanced Meal Management Practicum .....                | 2 |
| 245-105, Management Functions for the Resources of Habitat ..... | 1 |
| 245-235, The Human Habitat .....                                 | 3 |
| 245-360, Consumer Economics .....                                | 3 |
| 245-676, Family Finance .....                                    | 2 |
| 245-686, Home Management Seminar .....                           | 1 |

#### RESTRICTED ELECTIVES — 12 credits in Home Economics

Select courses from two or more of the departmental offerings within the School of Home Economics.

#### ELECTIVES — 30 credits

Completion of electives may be met by a minor; two concentrations of at least 15 credits each; or by selecting freely from any course work offered by the University.

## HOTEL AND RESTAURANT MANAGEMENT

This program leads to a Bachelor of Science degree. It prepares students for management positions in the hospitality industry. The program was established with the cooperation of the tourist industry in Wisconsin and other states in the north central region.

The hotel and restaurant industry is one of the fastest growing industries in America, today. With additional leisure time, Americans are on the move. The country has become travel conscious and travelers have become more sophisticated in their demands for services. Stout has developed one of the finest four-year hotel and restaurant programs in the nation to meet the industry's present and future needs. Besides providing a sound general education in liberal arts and sciences, Stout's program teaches young men and women to be innovative and creative in their chosen field.

Industry is seeking qualified persons to manage hotels and restaurants and to serve as executives for private clubs, resorts, institutional administrations, tourism and air line food services. Stout's program is the first of its kind in Wisconsin.

#### GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 128 credits
  - Required in liberal studies ..... 48 credits
  - Required in major ..... 60 credits
  - Free electives ..... 20 credits
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. All students are required to work a total of two 12-week periods, 40 hours a week, in approved jobs during summer months or the academic year. The student must write a report on his work experience and a

letter from the industry supervisor detailing work performance for a 12-week period is required. One summer must be spent in the Field Experience program.

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 48 credits required

| Course                                                                                                                                                             | Credit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 326-101, English .....                                                                                                                                             | 3      |
| 326-102, English .....                                                                                                                                             | 3      |
| 326—, Writing elective .....                                                                                                                                       | 2      |
| 326—, Literature elective .....                                                                                                                                    | 3      |
| 355—, Mathematics elective .....                                                                                                                                   | 4      |
| 367— or 368—, Physical Education elective .....                                                                                                                    | 2      |
| 391-100, Fundamentals of Speech .....                                                                                                                              | 2      |
| <i>Select 12 credits from among the following areas: Anthropology, Economics, Geography, History, Political Science, Sociology or 479-110, General Psychology.</i> |        |
| <i>Select five credits from among the following areas: Biology, Chemistry, or Physics.</i>                                                                         |        |
| <i>Select nine credits from two or more of the following areas: Art, Foreign Language, Music, Philosophy or Theatre.</i>                                           |        |

### MAJOR STUDIES — 60 credits required

|                                                                  |   |
|------------------------------------------------------------------|---|
| 130-110, Drafting or equivalent .....                            | 2 |
| 245-140, Introduction to Hotel and Restaurant Management .....   | 3 |
| 245-110, Basic Foods .....                                       | 4 |
| 245-220, Maintenance and Sanitation .....                        | 3 |
| 245-x97, Field Experience .....                                  | 2 |
| 245-300, Hotel and Restaurant Management .....                   | 3 |
| 245-312, Catering I .....                                        | 3 |
| 245-482, Senior Seminar in Hotel and Restaurant Management ..... | 3 |
| 309-206, Principles of Accounting .....                          | 3 |
| 309-207, Principles of Accounting .....                          | 3 |

**RESTRICTED ELECTIVES:** The balance of credits required to complete the major requirements must be selected from courses related to the major. Examples are courses in business administration and foods. Not more than 15 credits will be allowed in one area. Extensive counseling will be required. Each course must be approved by the student's advisor or the director of the major.

### ELECTIVES — 20 credits

From courses offered at Stout or those approved for transfer.

## INDUSTRIAL ARTS EDUCATION

Preparation of students to teach industrial arts classes in secondary schools is the primary objective of this program. The graduate may also qualify to enter graduate programs in industrial education.

A number of options are open to a student who wishes to specialize. Options are: (1) the graphic communications areas of industrial graphics or graphic arts, (2) the materials processing areas of metals, woods and plastics, and (3) the energy areas of electronics or power technology. During the freshman year students select a program advisor to assist in preparing a detailed four-year program.

## GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 130 credits
  - Required in liberal studies ..... 52 credits
  - Required in major studies ..... 42 credits
  - Required in professional education ..... 22 credits
  - Electives ..... 14 credits
 Completion of one of the following options:
  - a. A 42 credit major in Industrial Arts Education with one 22 credit minor.
  - b. A 42 credit major in Industrial Arts Education with two 15 credit blocks.
2. Students qualifying for Advanced Placement, Independent Studies or Honors courses will make appropriate substitutions in the requirements listed.
3. Technical electives will be selected in terms of area of technical concentration chosen.
4. Students must make application for admission to the education sequence. Candidates must hold a cumulative grade point average of at least 2.25 and meet the speech, English and health requirements as described in the Professional Education section of course descriptions.
5. Work experience related to a concentration may be obtained through participation in the Field Experience program.

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 52 credits required

| Course                                              | Credit |
|-----------------------------------------------------|--------|
| 326-101 and 102, English .....                      | 6      |
| 326—, Advanced Writing .....                        | 3      |
| 391-100, Fundamentals of Speech .....               | 2      |
| 391—, Speech elective .....                         | 2      |
| 355-120 and 121, Introduction to College Math ..... | 8      |
| 479-110, General Psychology .....                   | 3      |
| 320-201, Economics .....                            | 3      |
| 338—, History .....                                 | 3      |
| 387-110, Sociology .....                            | 3      |
| 375-210, Government .....                           | 3      |
| 311-115, Chemistry .....                            | 5      |
| 372-221, Mechanics and Electricity .....            | 5      |
| Science elective .....                              | 3      |
| 366-101, Personal Health .....                      | 1      |
| 367-127, Physical Education .....                   | 2      |



**MAJOR STUDIES — 42 credits required**

|                               |   |
|-------------------------------|---|
| 170-101, Processes .....      | 4 |
| 110-101, Energy .....         | 2 |
| 130-100, Communications ..... | 2 |

*Select 20 credits in technical course work as specified on latest program plan sheet. See Program Director for details.*

*Select 14 credits in the technical area to complete options mentioned in a. and b. above.*

**PROFESSIONAL EDUCATION — 22 credits required**

|                                                         |   |
|---------------------------------------------------------|---|
| 190-160, Introduction to Industrial Education .....     | 1 |
| 421-303, Educational Psychology .....                   | 2 |
| 190-205, Methods of Teaching Industrial Education ..... | 2 |
| 190-404, Curriculum Development .....                   | 5 |
| 190-408, Student Teaching .....                         | 8 |
| 421-422, Secondary Education .....                      | 2 |
| 413-501, Guidance .....                                 | 2 |

**ELECTIVES — 14 credits**

Select elective credit to complete two 15 credit blocks or one 22 credit minor. See advisor for details.

## INDUSTRIAL TECHNOLOGY

Stout's Industrial Technology degree is a broadly based program designed to prepare individuals for a variety of responsible industrial positions. Graduates have gained recognition and success in many areas of industry. Typical assignments include: Production supervision, quality assurance, packaging, process engineering, methods engineering, systems analysis, production control, cost estimating, purchasing, product design, sales and service, plant engineering, industrial relations, tool design, prototype development and technical writing.

The program provides for learning experiences to develop competencies in each of four broad areas:

1. Knowledge of the characteristics of materials and manufacturing processes.
2. Understanding of management principles and their application to industrial problems.
3. Awareness of the environmental and sociological implications and those psychological principles which are important in working with, communicating with, motivating, and supervising people.
4. Skill in utilizing the mathematical and physical sciences to understand and solve technological and economic problems found in industry.

**GENERAL REQUIREMENTS — B. S. DEGREE:**

|                            |               |
|----------------------------|---------------|
| Total for graduation ..... | 130 credits   |
| Liberal studies .....      | 56-63 credits |
| Major studies .....        | 35 credits    |
| Electives .....            | 24 credits    |

## PROGRAM REQUIREMENTS

## LIBERAL STUDIES — 56-63 credits required

| Course                                                              | Credit |
|---------------------------------------------------------------------|--------|
| 326-101 and 102, English .....                                      | 6      |
| 326—, Advanced Writing elective .....                               | 3      |
| 391-100, Fundamentals of Speech .....                               | 2      |
| 391—, Advanced Speech elective .....                                | 2      |
| 367-127, Physical Education .....                                   | 2      |
| 366-101, Personal Health .....                                      | 1      |
| 479-110, General Psychology .....                                   | 3      |
| 479-582, Personal Management .....                                  | 3      |
| 387-110, Sociology .....                                            | 3      |
| 375-210, Government or 338-120, 338-210 or 338-220, History .....   | 3      |
| 320-201 or 320-210, Economics .....                                 | 3      |
| 320-420, Labor Economics .....                                      | 3      |
| 355-120, 121 and 355-153, Mathematics or .....                      | 12     |
| 355-156, Analytic Geometry and Calculus I .....                     | 5      |
| 354-130, Computational Statistics .....                             | 2      |
| 354-141, Digital Computer Programming .....                         | 2      |
| 311-115, Introductory College Chemistry .....                       | 5      |
| 372-221 and 372-223, Mechanics and Electricity and Physics II ..... | 8      |

## MAJOR STUDIES — 35 credits required

|                                                                   |   |
|-------------------------------------------------------------------|---|
| 150-150, Industrial Organization .....                            | 2 |
| 150-210, Production Management .....                              | 3 |
| 150-500, Engineering Economy .....                                | 3 |
| 150-600, Industrial Supervision .....                             | 3 |
| <i>Select four of the following technical foundation courses:</i> |   |
| 130-110, Drafting .....                                           | 2 |
| 110-102, Electricity .....                                        | 2 |
| 170-202, Metals .....                                             | 2 |
| 110-260, Introduction to Fluid Power .....                        | 2 |
| 170-203, Woodworking .....                                        | 2 |
| 130-140, Introduction to Graphic Arts .....                       | 2 |
| 170-250, Plastics I .....                                         | 2 |
| 110-103, Power Mechanics .....                                    | 2 |
| 170-280, Packaging Fundamentals .....                             | 2 |

**CONCENTRATION** (select minimum of 16 credits from one of the following concentrations.)

## Graphic Arts Management

|                                         |
|-----------------------------------------|
| 130-247, Copy Preparation               |
| 130-250, Cold Type Composition          |
| 130-355, Line & Halftone<br>Photography |
| 130-360, Image Carriers                 |
| 130-365, Image Transfer                 |
| 130-370, General Binding                |
| 130-475, Printing Economics             |

## Technical Sales and Service

|                                         |
|-----------------------------------------|
| 309-334, Salesmanship &<br>Management   |
| 150-410, Manufacturing Cost<br>Analysis |
| 309-330, Principles of Marketing        |
| 150-320, Quality Control                |
| 309-318, Business Law I                 |
| 309-679, Marketing Research             |

**Manufacturing Engineering**

- 150-230, Methods Engineering
- 150-410, Manufacturing Cost Analysis
- 150-510, Production Processing
- 150-320, Quality Control
- 150-310, Production Control
- 150-x98, Series—Field Experience
- 170-460, Metal Forming & Fabrication
- 150-240, Work Measurement
- 150-660, Industrial Management

**Technical Writing**

- 326-516, Technical Writing for Ind.
- 326-344, Contemporary Rhetoric
- 326-425, Copyediting
- 130-414, Technical Illustration
- 107-504, Elementary Photography
- 130-140, Introduction to Graphic Arts

**Building Construction**

- 170-270, 170-370, 170-570, Bldg. Const. I, II, III
- 130-221, 130-325, 130-629, Arch. Design I, II, III
- 130-527, Topography
- 170-372, Heating and Air Conditioning

**Electronics**

- 110-143, DC & AC Circuits
- 110-244, Electronic Circuits
- 110-243, Semiconductor Electronics
- 110-345, Network Analysis

**Packaging**

- 170-280, Packaging Fundamentals
- 170-315, Packaging Materials
- 170-380, Packaging Systems
- 170-480, Package Design & Evaluation
- 150-440, Plant Layout & Material Handling
- 170-x98, Series—Field Experience

**Plant Engineering**

- 150-440, Plant Layout & Material Handling
- 130-221, Arch. Design I
- 150-x98, Series—Field Experience
- 130-527, Topography
- 110-143, DC & AC Circuits
- 110-248, Electric Machinery

**Product Development**

- 130-213, Mechanical Drafting
- 130-637, Product Development
- 130-230, Mechanisms
- 130-532, Machine Design Elements
- 130-638, Machine Design Problems

Work experience related to the individual's professional goals should be obtained through participation in the Field Experience program. A year-round cooperative educational program is also available for selected students. Both programs carry academic credit.

**ELECTIVES — 24 credits**

Each candidate for the degree should identify with a specific concentration in Industrial Technology and select his electives to compliment objectives of the concentration. In addition, a so-called special program option is available instead of the above concentrations for persons with clearly defined goals.

## MARKETING AND DISTRIBUTIVE EDUCATION

Distributive Education is one area of the total field of vocational education supported by local, state and federal funds. Teachers graduating with this



major are prepared to teach marketing at the technical school level and distributive education subjects at the high school level.

The field of distribution requires training for proprietors, managers and employees engaged primarily in marketing or merchandising goods and services. Distributive Education provides the training for this segment of our work force.

## GENERAL REQUIREMENTS — B. S. DEGREE:

1. Total for graduation ..... 131 credits
  - Required in liberal studies ..... 60 credits
  - Required in major ..... 35 credits
  - Professional education ..... 26 credits
  - Electives ..... 10 credits
2. Although it is not a requirement for graduation, students should be aware of the fact that they must acquire a minimum of 2,000 hours of acceptable occupational experience before they can be certified for teaching vocational education in Wisconsin.
3. Students must fulfill the English adequacy and speech proficiency requirements.
4. Specific course requirements and additional information about minors and/or concentrations can be obtained from the Program Director.

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 60 credits required

| Course                                                                                          | Credit |
|-------------------------------------------------------------------------------------------------|--------|
| English (326-101 and 102, or 326-111 and 112, and one course in literature) .....               | 9      |
| Speech (391-100 and one of the following: 391-200, 391-202, 391-204, 391-508, or 391-512) ..... | 4      |
| Psychology (479-110) .....                                                                      | 3      |
| Physical Education (366-101, 367-127 or 128) .....                                              | 3      |
| Art (304-101) .....                                                                             | 3      |
| Social Science (320-210, 320-215, 375-210, 387-110 and one course in history) .....             | 15     |
| Science (Biology, Chemistry or Physics) .....                                                   | 7-8    |
| Mathematics (to total 12 credits with science courses) .....                                    | 4-5    |
| Music or Theatre .....                                                                          | 2      |
| Electives (Philosophy, Foreign Language or any of the above areas) .....                        | 9      |

### MAJOR STUDIES — 35 credits required

|                                                    |   |
|----------------------------------------------------|---|
| 150-150, Industrial Organization .....             | 2 |
| 309-330, Principles of Marketing .....             | 3 |
| 309-206 and 207, Principles of Accounting .....    | 6 |
| 309-470, Principles of Advertising .....           | 3 |
| 309-245, Business Data Processing .....            | 3 |
| 309-325, Business Statistics .....                 | 3 |
| 309-334, Salesmanship and Sales Management .....   | 3 |
| 309-318, Business Law .....                        | 3 |
| 309-679, Marketing Research .....                  | 3 |
| 309-323, Retail Merchandising and Management ..... | 3 |
| 479-335, Personnel Management .....                | 3 |

**PROFESSIONAL TEACHER EDUCATION — 26 credits required**

|                                                                 |   |
|-----------------------------------------------------------------|---|
| 421-222, Principles of Secondary Education .....                | 2 |
| 421-303, Educational Psychology .....                           | 2 |
| 469-602, Principles of Vocational Education .....               | 2 |
| 416-304, Introduction to teaching Distributive Education .....  | 3 |
| 421-501, Introduction to Guidance and Counseling .....          | 2 |
| 416-404, Curriculum Development in Distributive Education ..... | 5 |
| 416-408, Student Teaching in Distributive Education .....       | 8 |
| 469-560, Cooperative Occupational Education Programs .....      | 2 |

**ELECTIVES — 10 credits**

From courses offered at Stout or those approved for transfer.

**PSYCHOLOGY**

Psychology, as defined in the program at Stout, is the systematic study of man—the individual person, his actions, his feelings, his total being. The basic purpose of this study is to learn how to improve living conditions. The program provides students with the learning experiences leading to eventual employment in an academic, applied and/or research area where Psychology is applied. Most students realize they must obtain graduate-level professional education before they can be considered competent psychologists.

Each student must plan to study the major concepts of man: his development, learning, perception, motivation, personality, relationships, decision making, evaluation behaviors, valuing behaviors, and communication behaviors. Each student must develop and use competencies in eight areas related to the above concepts: knowing, perceiving, relating, planning, doing (carrying out plans), evaluating, judging relevance, and communicating.

**GENERAL REQUIREMENTS — B. A. DEGREE:**

|                            |             |
|----------------------------|-------------|
| Total for graduation ..... | 130 credits |
| Liberal studies .....      | 70 credits  |
| Major studies .....        | 40 credits  |
| Electives .....            | 20 credits  |

**PROGRAM REQUIREMENTS****LIBERAL STUDIES — 70 credits or more**

*Select at least 25 credits in Communications including English 326-101 and 102, plus at least one advanced writing course; Speech 391-100, plus at least one advanced speech course; Foreign Language; Computational Statistics 354-130, plus computer programming; Journalism; Rhetoric; Reading or others. Select at least 15 credits in Fine Arts, Physical Educa-*

tion and Humanities, including one course in philosophy and one course in literature.

*Select at least 15 credits in Mathematics and Natural Sciences including at least one college-level math course and one science lab. Courses in community hygiene, genetics, physiology and anatomy, and ecology are appropriate. Applied math courses cannot be used for electives here but, with planning, may be used as Communications credit.*

*Select at least 15 credits in Social Sciences including at least one sociology course and a balance of history, geography, economics, government and anthropology.*

#### MAJOR STUDIES — 40 credits or more

Beginning courses to be taken simultaneously are Psychology Seminar I and Psychological Methods I along with one or more of the other introductory psychology courses. All students must register each semester for an appropriate level of Psychology seminar.

|                                                    |   |
|----------------------------------------------------|---|
| 479-110, General Psychology .....                  | 3 |
| 479-120, Psychology: Its History and Systems ..... | 3 |
| 479-150, Man: A Course of Study .....              | 3 |
| 479-190, Psychological Methods I .....             | 3 |
| 479-100, Psychology Seminar I .....                | 1 |
| 479-300, Psychology Seminar II .....               | 1 |
| 479-400, Psychology Seminar III .....              | 1 |
| 479-x99, Independent Study .....                   | 1 |
| 479-x97, Field Experience .....                    | 1 |

Electives — Select courses from the following to complete the 40 credit requirement of the major.

|                                                      |   |
|------------------------------------------------------|---|
| 479-251, Child Psychology .....                      | 3 |
| 479-260, Personality and Mental Health .....         | 3 |
| 479-390, Experimental Psychology .....               | 3 |
| 479-530, Psychology of Learning .....                | 3 |
| 479-540, Differential Psychology .....               | 3 |
| 479-552, Adolescent Psychology .....                 | 3 |
| 479-561, Abnormal Psychology .....                   | 3 |
| 479-562, Psychology of the Exceptional Child .....   | 2 |
| 479-571, Psychology of Marriage and the Family ..... | 2 |
| 326-541, Psycholinguistics .....                     | 3 |
| 308-520, Ethology .....                              | 2 |
| 387-250, Social Psychology .....                     | 3 |
| 303-220, Introduction to Cultural Anthropology ..... | 3 |

The above listed courses are related to Psychology Seminar II.

The courses listed below are related to Psychology Seminar III.

|                                                                                     |   |
|-------------------------------------------------------------------------------------|---|
| 479-581, Industrial Psychology .....                                                | 2 |
| 479-690, Psychological Measurement .....                                            | 3 |
| 479-582, Personnel Management .....                                                 | 3 |
| 413-501, Introduction to Guidance (and one other 413 course) .....                  | 2 |
| 459-201, Introduction to Vocational Rehabilitation (and one other 459 course) ..... | 3 |
| 421-303, Educational Psychology (and one other 421 course) .....                    | 2 |

#### ADDITIONAL ELECTIVES — 20 credits

The number of electives taken depends upon the students' choice of minor and course load. Many courses in the School of Home Economics and the



School of Industry and Technology help students develop competencies needed in Psychology. These are suggested to students in seminars and separate communications.

## TECHNICAL EDUCATION

The Technical Education degree program is designed for persons interested in teaching at the technical institute or junior college level.

The growth of the technical programs in post high school institutions has created a need for teachers who have depth of training and experience in a particular technology. The starting salary for post high school teachers is usually higher than for other teaching positions.

The degree requires a serious interest in a technology as well as a strong capability in mathematics and physical science. The student must also be available during summer periods so that the minimum related work experience requirement can be met prior to graduation.

Some technical teaching positions require that the teacher serve on a part-time basis in one of the academic areas related to the technology. To teach mathematics or science at a technical institute in Wisconsin on less than half time load, the teacher must have a minimum of 20 credits in the discipline. It is recommended that the prospective technical teacher prepare himself to teach in mathematics or science by using elective credits toward this end.

Program plans are available for two technologies, electronics and mechanical design. These programs are described in detail below. Because there are so many different technologies and the need for teachers in certain technologies is limited, formal program plans for the other technologies are custom made for the student. The Program Director for the Technical Education major must be contacted at least three months in advance of the school term so a valid degree program in a specific technology can be arranged.

### GENERAL REQUIREMENTS — B. S. DEGREE:

- |                                                          |               |
|----------------------------------------------------------|---------------|
| 1. Total for graduation .....                            | 130 credits   |
| Required in liberal studies .....                        | 48-54 credits |
| Required in major .....                                  | 47 credits    |
| Required in professional education .....                 | 22 credits    |
| Electives .....                                          | 7-13 credits  |
| 2. Completion of adequate related industrial experience. |               |

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 48-54 credits required

| Course                         | Credit |
|--------------------------------|--------|
| 326-101 and 102, English ..... | 6      |
| 326—, Writing elective .....   | 3      |
| 391-100, Speech .....          | 2      |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| 391—, Speech elective (electronics only) .....                  | 2  |
| 355-120 and 121, Mathematics .....                              | 8  |
| 355-153 and 154, Calculus (mechanical design 153 only) or ..... | 8  |
| 355-156 and 157, Calculus and Analytic Geometry .....           | 10 |
| 479-110, General Psychology .....                               | 3  |
| 338—, History elective .....                                    | 3  |
| 320-201, Economics .....                                        | 3  |
| 375-210, Government .....                                       | 3  |
| 367-127, Physical Education .....                               | 2  |
| 366-101, Personal Health .....                                  | 1  |
| 311-115, Introductory Chemistry .....                           | 5  |
| 372-221, Mechanics and Electricity .....                        | 5  |
| 326—, Literature elective (electronics only) .....              | 3  |

**MAJOR STUDIES** — 47 credits required in either Electronics Concentration or Mechanical Design Concentration.

### Electronics Concentration

|                                                     |   |
|-----------------------------------------------------|---|
| 110-143, D. C. and A. C. Circuit Analysis .....     | 3 |
| 110-244, Electronic Circuits .....                  | 3 |
| 110-243, Semiconductor Electronics .....            | 3 |
| 110-345, Network Analysis .....                     | 3 |
| <i>Select 15 credits from the 110 series below:</i> |   |
| 110-248, Electric Machinery .....                   | 3 |
| 110-353, Information Theory .....                   | 3 |
| 110-653, Communication Systems I .....              | 3 |
| 110-654, Communication Systems II .....             | 3 |
| 110-256, Digital Computer Systems .....             | 3 |
| 110-547, Electronic Circuit Design .....            | 3 |
| 110-656, Pulse and Switching Circuit Analysis ..... | 3 |
| 110-650, Electronic Control Systems .....           | 3 |
| 110-651, Feedback Control Systems .....             | 3 |
| Elective (technical) .....                          | 2 |
| 130-110, Drafting .....                             | 2 |
| 110-101, Energy .....                               | 2 |
| 170-101, Processes .....                            | 4 |
| 130-100, Communications .....                       | 2 |
| 354-141, Digital Computer Programming .....         | 2 |
| 355-255, Differential Equations .....               | 3 |
| 372-223, Physics II .....                           | 3 |

### Mechanical Design Concentration

|                                                |   |
|------------------------------------------------|---|
| 130-110, Drafting .....                        | 2 |
| 130-213, Mechanical Drafting .....             | 2 |
| 130-212, Descriptive Geometry .....            | 3 |
| 130-230, Mechanisms .....                      | 3 |
| 130-532, Machine Design Elements .....         | 3 |
| 130-433, Tool and Die Design .....             | 2 |
| 130-638, Mechanical Design Problems .....      | 3 |
| 372-222, Heat and Thermo .....                 | 2 |
| 372-325, Physics — Strength of Materials ..... | 3 |

|                                             |   |
|---------------------------------------------|---|
| 372-531, Physics — Mechanics I .....        | 3 |
| 372-529, Modern Physics .....               | 3 |
| 110-102, Electricity .....                  | 2 |
| 354-141, Digital Computer Programming ..... | 2 |
| 150-150, Industrial Organization .....      | 2 |
| 170-515, Metallurgy .....                   | 3 |
| 170-101, Processes .....                    | 4 |
| 355-110, Slide Rule .....                   | 1 |
| 170-230, Machine Shop .....                 | 2 |
| Electives .....                             | 5 |

#### PROFESSIONAL EDUCATION — 22 credits required

|                                                                       |   |
|-----------------------------------------------------------------------|---|
| 190-160, Introduction in Industrial Education .....                   | 1 |
| 421-303, Educational Psychology .....                                 | 2 |
| 190-205, Methods of Teaching Industrial Education .....               | 2 |
| 190-404, Curriculum Development .....                                 | 5 |
| 190-408, Student Teaching .....                                       | 8 |
| 469-602, Principles of Vocational, Technical and Adult Education .... | 2 |
| 413-501, Guidance .....                                               | 2 |

#### ELECTIVES — 7-13 credits

To be selected in consultation with advisor.

## VOCATIONAL EDUCATION

The undergraduate vocational teacher program in trade and industrial education is especially designed to prepare a person to teach a trade type occupation to a broad segment of this country's work force. Future auto mechanics, welders, machinists, electricians and others require well prepared teachers to relate necessary skills and knowledge.

Job opportunities for vocational trade and industrial teachers have been on a constant increase. These opportunities are found in comprehensive high schools, vocational high schools, post-high vocational schools, community colleges, private vocational schools and in the training departments of industrial plants.

An individual who has completed an apprenticeship or vocational training program in a trade and has worked as a tradesman makes an ideal candidate for this program. However, any high school graduate who will spend summers working in a trade can qualify as a candidate for the degree.

#### GENERAL REQUIREMENTS — B. S. DEGREE:

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| 1. Total for graduation .....                                           | 130 credits |
| Required in liberal studies .....                                       | 52 credits  |
| Required in major studies .....                                         | 42 credits  |
| Required in professional education .....                                | 26 credits  |
| Electives .....                                                         | 10 credits  |
| Completion of one of the following options (elective credits in liberal |             |



studies and professional education will be used to complete this requirement):

- a. A 42 credit major with one 22 credit minor.
- a. A 42 credit major with two 15 credit blocks.
2. A student must obtain a minimum amount of appropriate work experience for provision certification to teach vocational, trade and industrial courses. This requirement must also be met before a degree can be granted. (For more details, see Program Director.)
3. Work experience related to a concentration may be obtained through participation in the Field Experience program.
4. Students qualifying for Advanced Placement, Independent Studies or Honors courses may make appropriate substitutions in the requirements listed.
5. Appropriate education, beyond that required, may be used to substitute for up to two-thirds of the work experience requirement (see Program Director).
6. Students must make application for admission to the education sequence. Candidates must hold a cumulative grade point average of at least 2.25 and meet the speech, English and health requirements as described in the Professional Education section of course descriptions.

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 52 credits required

| Course                                              | Credit |
|-----------------------------------------------------|--------|
| 326-101 and 102, English .....                      | 6      |
| 326—, Advanced Writing .....                        | 3      |
| 391-100, Fundamentals of Speech .....               | 2      |
| 391—, Speech elective .....                         | 2      |
| 355-120 and 121, Introduction to College Math ..... | 8      |
| 479-110, General Psychology .....                   | 3      |
| 320-201, Economics .....                            | 3      |
| 338—, History .....                                 | 3      |
| 387-110, Sociology .....                            | 3      |
| 375-210, Government .....                           | 3      |
| 311-115, Chemistry .....                            | 5      |
| 372-221, Mechanics and Electricity .....            | 5      |
| Science elective .....                              | 3      |
| 366-101, Personal Health .....                      | 1      |
| 367-127, Physical Education .....                   | 2      |

### MAJOR STUDIES — 42 credits required

Because each student brings different qualifications as a result of prior training and experience, the student with the assistance of the Program Director will define all 42 technical credits in terms of student and job competency needs.

### PROFESSIONAL EDUCATION — 22 credits required

|                                                         |   |
|---------------------------------------------------------|---|
| 190-160, Introduction in Industrial Education .....     | 1 |
| 421-303, Educational Psychology .....                   | 2 |
| 190-205, Methods of Teaching Industrial Education ..... | 2 |
| 190-404, Curriculum Development .....                   | 5 |

|                                                                       |   |
|-----------------------------------------------------------------------|---|
| 190-408, Student Teaching .....                                       | 8 |
| 421-422, Secondary Education .....                                    | 2 |
| 413-501, Guidance .....                                               | 2 |
| 469-602, Principles of Vocational, Technical and Adult Education .... | 2 |
| 469-560, Cooperative Occupational Education Programs .....            | 2 |

### ELECTIVES — 10 credits

Select elective credit to complete two 15 credit blocks or one 22 credit minor. See advisor for details.

## VOCATIONAL REHABILITATION

This is the only undergraduate major in rehabilitation in Wisconsin. The purpose of the program is to prepare students with the knowledge and competencies to be employed in a variety of agencies designated to help handicapped and disadvantaged people. Handicapped persons include those with physical disabilities, mental illness, mental retardation, blindness, deafness, alcoholism, epilepsy, and those who have committed criminal offenses. Disadvantaged persons are those who have been handicapped due to poverty and neglected environment. Graduates qualify for a wide range of employment opportunities in the rehabilitation professions, including work evaluation and training positions, counseling and casework positions, and administrative positions (after obtaining some experience). Employing agencies include sheltered workshops, rehabilitation centers, institutions, hospitals, state rehabilitation and employment agencies, voluntary organizations and industry. Opportunities for advancement to supervisory and administrative positions are excellent. Graduate study in rehabilitation is available in more than 80 colleges and universities.

### GENERAL REQUIREMENTS — B. S. DEGREE:

|                               |               |
|-------------------------------|---------------|
| 1. Total for graduation ..... | 130 credits   |
| Liberal studies .....         | 40 credits    |
| Major studies .....           | 40-44 credits |
| Special studies* .....        | 28-32 credits |
| Electives .....               | 18-20 credits |

\*The student must select a special studies concentration from either Business, Home Economics, Industrial Arts and Technology, or Physical Education. Courses in these areas are designed to provide the specific technical skills for working with the handicapped and disadvantaged in rehabilitation settings.

- Students majoring in rehabilitation must obtain a grade of "C" or better in all courses taught in the Rehabilitation Department. The student will have the option of taking the course over again and obtaining a "C" or better or dropping from the program. In addition, an overall grade point average of 2.25 is required for all courses taught by the Rehabilitation Department.
- Students must fulfill the English adequacy and speech proficiency requirements of the respective departments.
- Provisions can be made to obtain a dual major in Vocational Rehabilitation.

tion and Early Childhood Education. This program is designed to prepare the student for working in day care-work activity programs (for handicapped children, adolescents and adults) and home training programs.

## PROGRAM REQUIREMENTS

### LIBERAL STUDIES — 40 credits required

| Course                                                                                                                              | Credit |
|-------------------------------------------------------------------------------------------------------------------------------------|--------|
| 326-101 and 102, and 326-345 or 346 or 347, English .....                                                                           | 9      |
| 391-100, Speech .....                                                                                                               | 2      |
| 479-110, Psychology .....                                                                                                           | 3      |
| 387-110, Social Science, and two of the following: 338-220, 375-210<br>or 320-201 .....                                             | 9      |
| 308-132, Science and one elective .....                                                                                             | 6-7    |
| 367-127 or 368-128, Physical Education .....                                                                                        | 2      |
| Electives (one course each from three of the following areas: Art,<br>Music, Theatre, Math, Literature, French or Philosophy) ..... | 8-9    |

### MAJOR STUDIES — 40-44 credits required

|                                                               |       |
|---------------------------------------------------------------|-------|
| 459-201, Introduction to Rehabilitation .....                 | 3     |
| 459-202, Community Resources .....                            | 3     |
| 459-301, Rehabilitation Practicum .....                       | 2     |
| 387-560, Juvenile Delinquency .....                           | 3     |
| 479-561, Abnormal Psychology .....                            | 3     |
| 459-x98, Field Experience or Independent Studies .....        | 2     |
| 459-601, Rehabilitation Methods I: Evaluation .....           | 3     |
| 459-503, Physical Disability and Work .....                   | 3     |
| 459-602, Rehabilitation Methods II: Adjustment .....          | 3     |
| 459-400, Rehabilitation Seminar .....                         | 1     |
| 459-585, Mental Retardation and Behavioral Disabilities ..... | 2     |
| Restricted electives .....                                    | 12-16 |

### SPECIAL STUDIES — 28-32 credits required from one of the four following specialties:

#### INDUSTRIAL TRACK

|                                                                                     |      |
|-------------------------------------------------------------------------------------|------|
| 150-150, Industrial Organ. ....                                                     | 2    |
| 309-206, Accounting .....                                                           | 3    |
| Educational Methods Course with approval of program director .....                  | 2    |
| 170-101, Processes I or 170-203, Woods; 170-202, Metals and 170-250, Plastics ..... | 4-6  |
| 110-102, Electricity .....                                                          | 2    |
| 130-140, Graphic Arts .....                                                         | 2    |
| Industrial electives .....                                                          | 4-8  |
| Production Management restricted electives .....                                    | 7-11 |

#### BUSINESS TRACK

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| 170-304, Industrial Crafts .....                                   | 2   |
| 150-150, Industrial Organ. ....                                    | 2   |
| Educational Methods Course with approval of program director ..... | 2   |
| 309-206, Accounting I .....                                        | 3   |
| 309-207, Accounting II .....                                       | 3   |
| 309-304, Business Management .....                                 | 3   |
| 309-330, Marketing .....                                           | 3   |
| 320-210, Economics I .....                                         | 3   |
| 320-215, Economics II .....                                        | 3   |
| Restricted electives .....                                         | 4-8 |



## HOME ECONOMICS TRACK      PHYSICAL EDUCATION

|                                                                                                                                                                                       |   |                                                                         |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------|-----|
| 170-304, Industrial Crafts .....                                                                                                                                                      | 2 | 170-304, Industrial Crafts .....                                        | 2   |
| 150-150, Industrial Organ. ....                                                                                                                                                       | 2 | 150-150, Industrial Organ. ....                                         | 2   |
| Educational Methods Course with ap-<br>proval of program director .....                                                                                                               | 2 | Educational Methods Course with ap-<br>proval of program director ..... | 2   |
| Select two of the three following<br>courses:                                                                                                                                         |   | 368-215, Gymnastics .....                                               | 2   |
| 212-124, Child Development .....                                                                                                                                                      | 3 | 368-225, Individual and Dual Sports ..                                  | 2   |
| 212-250, Family Relationships I .....                                                                                                                                                 | 3 | 368-226, Individual and Dual Sports ..                                  | 2   |
| 212-264, Child Guidance .....                                                                                                                                                         | 2 | 368-235, Rhythmical Activities .....                                    | 2   |
| Select 8-10 credits from the offerings of the<br>Department of Habitational Resources. Select<br>6-10 credits from Food Service and Nutrition<br>and/or Apparel, Textiles and Design. |   | 368-245, Team Sports .....                                              | 2   |
|                                                                                                                                                                                       |   | 366-240, First Aid and Safety .....                                     | 2   |
|                                                                                                                                                                                       |   | 366-370, Elementary School Phy. Ed. ..                                  | 2   |
|                                                                                                                                                                                       |   | 366-102, Foundations of Phy. Ed. ....                                   | 1   |
|                                                                                                                                                                                       |   | Independent Studies .....                                               | 2   |
|                                                                                                                                                                                       |   | Phy Ed. restricted electives .....                                      | 5-9 |

## ELECTIVES — 18-20 credits

From courses offered at Stout or those approved for transfer.

## MINORS

|                         |                            |            |
|-------------------------|----------------------------|------------|
| Art                     | English                    | Physics    |
| Biology                 | History                    | Psychology |
| Business Administration | Journalism                 | Safety     |
| Chemistry               | Mathematics                | Sociology  |
| Computer Science        | Physical Education (Women) | Speech     |
| Economics               |                            |            |

Minors are defined as teaching and non-teaching. Teaching minors are those approved by the State Department of Public Instruction for certification. A graduate can be certified for a teaching minor, however, only if he has an education major. Programs for minors must be approved by the department offering the minor.

## ART

Twenty-two semester hours are required. Required courses are 304-101, 304-100, 304-509, 304-511 and 304-522. The additional seven credits may be accumulated for a 22 credit minor by taking any studio or art history courses offered by the Art Department.

## BIOLOGY

A minor in Biology may be completed as a teaching or a non-teaching minor. A teaching minor consists of 22 semester hours of biology plus one semester of inorganic chemistry (311-115 or 311-135). The required courses in biology for the teaching minor are 308-132, 308-142, 308-152 and 308-206. Additional courses to complete 22 semester hours of biology will be selected. Of these no more than two of the courses 308-150, 308-332 and 308-342 will be acceptable. The course 308-122 is acceptable only when taken before the courses 308-142 and 308-152.

A non-teaching minor consists of 22 semester hours of biology. The required courses in biology are 308-132, 308-142, 308-152 and 308-206. Additional courses to complete 22 semester hours of biology will be selected. Of these no more than two of the courses 308-150, 308-332 and 308-342 will be acceptable. The course 308-122 is acceptable only when taken before the courses 308-142 and 308-152. Inorganic chemistry is not required for the non-teaching minor.

All students entering a minor program in biology will be assigned a faculty advisor to aid the student in proper scheduling of courses.

## BUSINESS ADMINISTRATION

A minor in Business Administration consists of 22 semester hours. Minor programs are to be approved by the department. Required courses are 309-206, 309-207, 309-304, 309-330, 320-210 and 320-215 (18 credits). Elective courses may be selected from the following: 150-150, 120-200, 309-318, 309-340, 479-582 or other courses approved by the Department of Business Administration (4 credits).

## CHEMISTRY

Twenty-two semester hours are required. Required courses are 311-115 or 311-135; 311-136 and 311-201. Chemistry minors who plan to obtain teaching certificates are required to select 311-531, 311-501 and 311-503. Additional chemistry courses will be selected.

## COMPUTER SCIENCE

A minor in Computer Science requires 355-120 or 365-301; 354-141, 354-240, 354-241 and Independent Study. Additional courses will be selected.

## ECONOMICS

Students may elect a 22 credit minor in Economics either for teaching or non-teaching. Required courses are 320-210, 320-215, 320-410 and 320-415. Additional economics courses and 309-325 and 338-520 will be selected.

## ENGLISH

A minor in English consists of 22 semester hours. All English minor programs must be approved by the Department of English.

Students who wish to be certified to teach English must take a teaching minor in English. A teaching minor in English must include the following courses: 326-340, The Structure of English; 326-344, Contemporary Rhetoric; 326-348, American Literature; and 326-400 and 326-401, English Literature. Additional English courses, excluding 326-101 and 326-102, Freshman English, will be selected; 326-111 and 326-112 (Honors) English, may be included. One course in speech, either 391-202, Advanced Speech Activities; 391-334, Contemporary Theatre; or 391-338, Play Production, may be included.

A non-teaching minor in English for those who do not wish to be certified to teach is taken with an option in either literature or writing.

The non-teaching English minor with an option in literature includes 326-347, Critical Writing; 326-400 and 326-401, English Literature; 326-402, Concepts of Literary Criticism; and a minimum of 10 semester hours in literature.

The non-teaching minor in English with an option in writing includes courses from the following blocks: (1) language (a minimum of three semester hours), (2) literature (a minimum of six semester hours), and (3) writing (a minimum of 11 semester hours).

## JOURNALISM

Twenty-two semester hours are required. Required courses are 326-306, 326-518, 326-410, 326-515 or 326-516; 326-425, 421-679, 130-140 and 107-504. Additional courses will be selected from 326- (any literature course numbered 200 or above), 304-101, Fundamentals of Design; 130-245, Printing Design; 130-475, Printing Economics; 375-210, Government; 338-220, History of America; 338-210, Modern World; 387-515, Problems of American Society; 375-310, American Politics; 391-554, Television Programming and Performance; 391-244, Radio Programming and Production; Field Experience and Independent Study.

## HISTORY

Students may elect a 22 credit minor in history either for teaching or non-teaching. Required courses are 338-120, 338-121, 338-140, 338-141 and 338-210. Additional history courses will be elected.

Students who take a teaching minor in history must include two out of the following courses: 338-360, 338-380 and 338-522.



## MATHEMATICS

Twenty-two semester hours are required. Minor programs are to be approved by the department. Courses required for teaching certification are: 355-153 or 355-156; 355-265, 355-275, 355-331 and 355-470. Additional courses will be selected.

## PHYSICAL EDUCATION — WOMEN

Twenty-two semester hours are required. Required courses are 368-215, 368-225, 368-226, 368-245, 366-235, 366-240, 366-375, 308-132 and 308-342. Additional physical education courses will be selected. For teacher certification in physical education, the student must also take 368-408, Teaching Methods in Physical Education.

## PHYSICS

Twenty-two semester hours are required. Required courses are 372-221, 372-223, 372-527 and 372-529. Additional physics courses will be selected. 110-345, Network Analysis, may be included.

## PSYCHOLOGY

Twenty-two semester hours are required. Required courses for 11 semester credits include: 479-110, 479-260 or 479-561; 354-130 or 413-690; 479-251 or 479-552. Courses from which to select 11 or more semester credits: 479-120, 479-150, 479-190, 479-390, 479-530, 479-540, 479-562, 479-571, 479-581, 479-582, 479-690, 413-675, 413-691, 413-681, 421-203, 459-585, 303-220, 387-250, Field Experience and Independent Study.

## SAFETY

Twenty-two semester hours are required. Required courses are 110-271 (182-423), 110-375 (182-448), 110-376 (182-452) and 110-578 (182-455). Ten additional credits should be selected from the following courses: 110-210 (176-242), 366-101, 421-303 (479-303), 407-560 (407-460), 190-205 (449-304) or equivalent, and 413-501 (421-401).

## SOCIOLOGY

Twenty-two semester hours are required. Required courses are 387-110, 387-250, 387-515 and 303-220. Additional sociology courses will be selected. 479-571, Psychology of Marriage and the Family, may be included.

## SPEECH

A teaching minor in Speech consists of 22 semester hours. Required courses are 391-100 and 391-200. Additional speech courses will be selected. One literature course from the English Department may be included when the course is approved by the Speech Department.

A non-teaching minor consists of 22 semester hours with the four following options: General Speech, Communication and Public Address, Radio-Television-Film, and Theatre. Each minor includes a minimum of 10 semester hours in the option, plus 12 semester hours from the remaining three areas. A literature course may be included.

All speech minors must be planned with and approved by the Speech Department.

## BLOCKS

### HOME ECONOMICS

Fifteen credit blocks are available in any subject-matter area. After selecting an area of concentration, students must consult with their advisor to work out the most beneficial program.

### INDUSTRIAL ARTS EDUCATION AND VOCATIONAL TRADE AND INDUSTRIAL EDUCATION

Fifteen credit blocks are available in Communications, Mathematics, Science, Social Science, Art and Psychology. After selecting an area of concentration, students must consult with their advisor to work out the most beneficial program.

# COURSE DESCRIPTIONS



Descriptions of all courses offered by Stout State University are listed on the pages immediately following. Because the University's course numbering system was recently changed, the new and old numbers appear. In each case, the present course number is followed by the course title. If the course number has been changed, the old number follows the title.

## SCHOOL OF INDUSTRY AND TECHNOLOGY HERBERT A. ANDERSON, ED.D., DEAN

Programs: American Industry  
Industrial Arts Education  
Industrial Technology  
Technical Education  
Vocational Education



## INTERDEPARTMENTAL

**100-490 Technical Service Schools.** 1-6 Cr. Many manufacturers offer special purpose technical courses. Some of them are suitable for college credit. The following guidelines are used to award such credit: (1) The student makes all the arrangements with the manufacturer offer-

ing the course; (2) Credit is awarded on the basis of one credit for each full week (40 clock hours) of attendance; (3) Students must be enrolled and pay fees at the University prior to taking the course; and (4) Approval by the dean will be necessary prior to enrollment for credit.

## ENERGY AND TRANSPORTATION

**110-101 Energy in Industry (102-438).** 2 Cr. Conceptual study, including application and experimentation of the environmental quality which provides the ability or capacity to do work.

**110-102 Electricity (124-208).** 2 Cr. Principles of electricity as applied to power generation distribution and use. A study of direct and alternating current circuits, controls, capacitance, induction, transformers, poly-phase systems, and measurement of electrical quantities. Prerequisite: 355-120 or equivalent.

**110-103 Power Mechanics (176-202).** 2 Cr. Basic sources of energy, transformation into useful power, and application of power to do useful work.

**110-143 D.C. and A.C. Circuit Analysis (124-228).** 3 Cr. Circuit theorems, applications of complex algebra, resistive circuit analysis, A.C. circuit analysis, Bode plot, transient analysis, and transformer analysis. This is a theoretical course; no laboratory is required. Prerequisites: 110-101 or 110-102, 355-121.

**110-201 TRANSPORTATION (102-214).** 2 Cr. Development of the concept area of transportation as related to the need preparation,

methods, destination and control as it relates to American Industry.

**110-209 POWER MECHANICS-SMALL ENGINE SERVICE (176-254).** 2 Cr. Mechanical principles and functions of small power units. Operation, maintenance, tune-up and overhaul procedures of small two- and four-cycle engines.

**110-210 GENERAL MOTOR MECHANICS (176-242).** 2 Cr. Consumer knowledge on automobile chassis, internal combustion engine components, fuels, ignition, suspension, and drive systems including service and adjustment techniques.

**110-211 ELECTRICAL CIRCUITS AND ACCESSORIES (176-232).** 2 Cr. Automotive starting, generating, ignition, and accessory circuits. Test and repair techniques with emphasis on batteries, cranking, charging and accessory units.

**110-240 ELECTRONICS (124-310).** 2 Cr. Solid state rectifiers, amplifiers, oscillators and associated input and output devices. Concepts of electronic communications and application of equipment to selected problems are also studied. Not ap-

plicable to the electronics concentration. Prerequisite: 110-101 or 110-102.

**110-243 SEMICONDUCTOR ELECTRONICS (124-326).** 3 Cr. An analytical study of semiconductor physics, P-N junction diodes, CE, CB, CC configuration analysis, biasing and stabilization, graphical analysis, Z, Y, H and G equivalent circuit, T-models, R. F., A. F., and D. C. circuit analysis. Laboratory work is required. Prerequisite: 110-143.

**110-244 ELECTRONIC CIRCUITS (124-322).** 3 Cr. General electronic circuits, amplifiers, oscillators, wave-shaping circuits, power supply circuits and instrumentation. Laboratory work is required. Prerequisite: 110-143.

**110-248 ELECTRIC MACHINERY (124-352).** 3 Cr. Energy conversion theory, rotating machinery concept, engineering consideration, d. c. motors, synchronous machines, induction machines, fractional horsepower motors and speed control techniques of motors. Prerequisite: 110-143.

**110-256 DIGITAL COMPUTER SYSTEMS (124-462).** 3 Cr. Linear wave shaping, pulse transformers and delay lines, steady state switching, clamping and clipping circuits, switching circuits, logic circuits, multi-vibrators, time base generators, sampling gates. Laboratory work is required. Prerequisite: 110-243 or 110-244.

**110-260 INTRODUCTION TO FLUID POWER (176-223).** 2 Cr. Fundamentals of fluid power: basic fluid mechanics, pneumatics, hydraulics, control systems, common

industrial circuits are discussed and tested.

**110-271 SAFETY, PRINCIPLES AND PRACTICES (182-423).** 3 Cr. Introduction to the philosophy and principles of accident prevention. School safety programs. Identification of resources and content such as, motor vehicle, home, public, farm, industrial, school, recreational, and civil defense.

**110-308 THERMODYNAMICS OF INTERNAL COMBUSTION ENGINES (176-338).** 2 Cr. The study of fuels, oxidants and propellents, combustion and combustion processes, and gas laws as they apply to internal combustion engines. Prerequisites: 355-120, 355-121 and 372-221.

**110-311 FUELS AND CARBURETION (176-342).** 2 Cr. Internal combustion engine fuels, fuel systems, and carburetion principles including exhaust emission control devices. Theory and application experience.

**110-314 CHASSIS AND RIDE CONTROL (176-334).** 2 Cr. Automotive suspension systems, ride control and brakes. Laboratory work on wheel alignment, balancing, steering systems, and brake rebuilding.

**110-320 BODY REPAIR AND REFINISHING (176-350).** 3 Cr. Damage analysis, repair procedures, surface preparation, and finish application on automobile bodies; accessories, trim, and interiors also included.

**110-341 BASIC INSTRUMENTATION AND CONTROL (124-412).** 2 Cr. Principles and practices of



measurement and industrial control. Open and closed loop control system of control are studied. Transducers, analog to digital converters, and automatic read out systems are presented. Prerequisite: 110-240.

**110-342 ELECTRONIC COMMUNICATION (124-414).** 2 Cr. A study of electronic communication systems to the depth where the student will understand the function, principle of operation, application, and limitations of each system. Prerequisite: 110-240.

**110-345 NETWORK ANALYSIS (124-424).** 3 Cr. A theoretical approach of electrical network analysis. Network equations, Laplace transformation, frequency domain analysis, applied differential equations, steady state and transient analysis. No laboratory work is required. This course is required for students to pursue more advanced studies in electronics. Prerequisite: 110-143, 355-255.

**110-353 INFORMATION THEORY (124-440).** 3 Cr. Electronic communication theories, information transmission, network responses to signals, modulation systems, demodulation systems, amplitude modulation, double sideband, single sideband, narrow band frequency modulation, wide band frequency modulation systems, periodic sampling pulse modulation and demodulation, and noise analysis. Laboratory work is required. Prerequisite: 110-243, 355-154 or 355-157.

**110-360 APPLIED FLUID MECHANICS (176-310).** 3 Cr. Analysis of fluid flow laws and principles. Application to power components and circuits are stressed with special emphasis on fluid statics, fluid-

flow concepts, viscous effects; and compressible flow. Prerequisite: 355-121.

**110-361 INDUSTRIAL HYDRAULICS (176-307).** 2 Cr. Theory, operation and construction of hydraulic systems and circuits with emphasis on the components: pumps, reservoirs, lines, control valves, and actuators. Prerequisite: 110-260.

**110-362 INDUSTRIAL PNEUMATICS (176-328).** 2 Cr. Theory, operation, and construction of components common to pneumatics and pneumatic-hydraulic systems with application to basic industrial circuits. Components considered: compressors, plumbing, control valves, and actuators. Prerequisite: 110-260.

**110-363 FLUID POWER MEASUREMENT AND CONTROL (176-320).** 2 Cr. A study of measurement and control devices as they relate to circuit and systems control with special concern with flow, pressure, speed and torque. Mechanical, electrical, pneumatic and fluidic controls are studied. Prerequisites: 110-260 and 110-360.

**110-375 DRIVER AND TRAFFIC SAFETY ED. (182-448).** 3 Cr. Introduction to history, objectives, and instructional content and methods of traditional driver and traffic safety education programs. Laboratory experience involves instruction of student driver in dual controlled vehicles. Prerequisite: Valid Driver's License.

**110-376 ADMINISTRATION OF DRIVER AND TRAFFIC SAFETY EDUCATION (182-452).** 3 Cr. Comprehensive programming of driver and traffic safety education programs. Emphasis on simulation,



range, adult programs, instruction, and psychology of driver. Prerequisite: 110-375.

**110-547 ELECTRONIC CIRCUIT DESIGN** (124-476). 3 Cr. An analytical study of electronic circuit design, the philosophy of circuit design, general design procedures, DC and low frequency design, high frequency design, digital circuit design, switching circuit design, power supply, analog computer circuit design, and the circuit evaluation techniques. Some laboratory work is required. Prerequisites: 110-256, 110-345.

**110-577 DRIVER IMPROVEMENT PROGRAMS** (182-453). 2 Cr. The improvement of drivers through educational methodology, curriculum planning, and research. Special attention given to adult programs, mentally retarded, orthopedically handicapped, as well as the chronic violator and the accident repeater.

**110-578 TRAFFIC AND HIGHWAY SAFETY PROGRAMS** (182-455). 3 Cr. An overview of the traffic and highway safety problems, components, research agencies, national, state and local policies, standards, and recommendations for improved traffic safety. Prerequisite: 110-271.

**110-581 PRINCIPLES OF INDUSTRIAL SAFETY** (182-460). 3 Cr. An overview of occupational accident prevention programs. Emphasis on techniques of measurement, cost of accidents, locating and identifying accident sources, psychology of occupational safety and problems of selecting corrective action.

**110-582 INDUSTRIAL SAFETY PROGRAMMING** (182-464). 3 Cr. In depth study of current adminis-

trative, organizational, and supervisory practices which are specifically and uniquely related to managing the operational industrial or occupational accident prevention program.

**110-611 TUNE UP AND DIAGNOSIS** (176-468). 2 Cr. Practicum in automotive tune-up and diagnostic service procedures, service operations with all types of modern automotive test equipment. Prerequisites: 110-211, 110-311 and 110-314.

**110-614 TRANSMISSION AND DRIVE TRAINS** (176-456). 2 Cr. Power transmission through gears, clutches and drives common to the automobiles. Fluid couplings, gear sets, differentials, transmissions and drive lines. Prerequisite: 110-314.

**110-615 ENGINE MACHINING AND REBUILDING** (176-462). 3 Cr. The rebuilding of four-stroke cycle engines including all necessary precision machining. Special emphasis given to cylinders, blocks, valve trains and reciprocating parts.

**110-625 AUTO SHOP MAINTENANCE AND MANAGEMENT** (176-445). 3 Cr. Maintenance and management of equipment and personnel peculiar to the auto shop.

**110-630 AEROSPACE** (176-400). 3 Cr. Classroom, field and optional flight experiences for educators who wish a better understanding of today's aviation or aerospace industries, details of space exploration, federal licensing regulations, air traffic control, and related career guidance information.

**110-631 PRIVATE PILOT'S GROUND SCHOOL** (176-440). 3 Cr. Prepares the beginning flight student for an F.A.A. Private Pilot's Certificate through the study of air-

plane utility, flight manuals, safety, federal aviation regulations, navigation, communication, weather, general operation of aircraft and flight theory.

**110-635 INTRODUCTION TO FLIGHT** (176-480). 2 Cr. Development of skills and knowledge of flying a single engine aircraft. Instruction includes applied flight theory, dual flight instruction and solo flight. Prerequisite: 110-631.

**110-650 ELECTRONIC CONTROL SYSTEMS** (124-454). 3 Cr. General electronic control systems, sensing devices, control devices, sequence control, basic feedback control principles, analog computation and control, numerical controls. Laboratory work is required. Prerequisite: 110-345.

**110-651 FEEDBACK CONTROL SYSTEMS** (124-458). 3 Cr. Models and equations of linear system, feedback control components, general theory, response of feedback systems, the Nyquist criterion, Bode plot analysis, polar plots, frequency response, root-loci techniques, non-linear system analysis. Laboratory work is required. Prerequisite: 110-650.

**110-653 COMMUNICATION SYSTEMS I** (124-444). 3 Cr. An analytical study of communication trans-

mission and receiving systems, the circuits and design techniques of systems, signal transmission systems, signal receiving systems, and applied techniques. Laboratory work is required. Prerequisite: 110-345, 110-353.

**110-654 COMMUNICATION SYSTEMS II** (124-446). 3 Cr. An analytical study of antenna systems, electromagnetic field theory, low frequency antenna, high frequency antenna theory and design, radio frequency transmission lines and graphical synthesis of impedance matching networks. Laboratory work is required. Prerequisite: 110-653.

**110-656 PULSE & SWITCHING CIRCUIT ANALYSIS** (124-464). 3 Cr. An analytical study of electronic circuit design, philosophy of circuit design, general design procedures, C.C. and low frequency design, high frequency design, digital circuit design, switching circuit design, power supply, analog computer design, circuit evaluation techniques. Laboratory work is required. Prerequisite: 110-256, 110-345.

**110-660 FLUID POWER SYSTEMS DESIGN** (176-426). 3 Cr. Introduction to fluid power systems design through problem solving in areas of load analysis, circuit control, and component selection. Prerequisites: 110-360, 110-362 and 110-363.

## GRAPHIC COMMUNICATIONS

**130-100 COMMUNICATIONS** (102-210). 2 Cr. Development of the concept area of communication source, message, receiver, feedback, and interference; study of graphic, electronic, human and media systems of communication.

**130-110 DRAFTING** (148-101). 2 Cr. A graphic communication involving projections concepts to correctly represent three-dimensional forms on two-dimensional surfaces. Principles of shape description, size description, and drafting techniques



are implemented through the utilization of problem solutions.

**130-140 GRAPHIC ARTS (137-117).** 2 Cr. Broad concepts of the several methods of reproducing visual images. Includes study in design and layout, composition methods, photo-conversion techniques, image carrier devices, image transfer mechanisms, finishing and binding procedures, and economic highlights of the graphic arts.

**130-212 DESCRIPTIVE GEOMETRY (148-224).** 3 Cr. The graphic representation and solution of space problems involving point, lines, planes, intersections, revolutions, and vectors. Prerequisite: 130-110.

**130-213 MECHANICAL DRAFTING (148-102).** 2 Cr. Analysis, research and graphical solutions of selected mechanical design problems utilizing current industrial problem solving techniques and communications skills including: varied aspects of design drafting, manufacturing operations, identification of materials, standard parts, technical reports and reproduction processes. Prerequisite: 130-110.

**130-221 ARCHITECTURAL DESIGN I (148-231).** 3 Cr. An introduction to architectural design through the solution of design problems: analysis of site and client's needs, preliminary sketches, presentation drawings and working drawings. Study of: contemporary residential architecture structural systems, nature of structural materials, residential codes, FHA minimum property standards, frame construction, residential mechanical systems, lighting, electrical systems and estimating. Prerequisite: 130-110.

**130-230 MECHANISMS (148-250).** 3 Cr. Graphical and analytical analysis and synthesis of linkages, cams

and gear trains. Prerequisites: 130-212, 130-213, 372-221.

**130-245 PRINTING DESIGN (137-361).** 3 Cr. The study of two-dimensional design and its relationship to graphic reproduction in terms of balance, contrast, color, form and texture for specified communications. Prerequisite: 130-140.

**130-247 COPY PREPARATION (137-214).** 2 Cr. Review of the various printing mediums, art, photography, typography, layout, type, composition, platemaking, presswork, and bindery as related to the preparation of copy for reproduction. Laboratory experiences with the various materials and techniques used in preparing copy. Prerequisite: 130-140.

**130-250 COLD TYPE (137-255).** 2 Cr. An introduction to cold type composition. Basic elements of hand composition and simple stick-on, paste-on, and photo-lettering devices. Prerequisite: 130-140.

**130-325 ARCHITECTURAL DESIGN II (148-341).** 3 Cr. Programming and analysis, design solution and presentation and preliminary working drawings for light commercial and / or public buildings. Study of building codes (state and national), construction contract documents, structural materials and systems, building materials and systems and mechanical systems. Prerequisite: 130-221.

**130-352 HOT TYPE (137-257).** 2 Cr. The mechanism, care, and operation of hot metal casting and composing machines. Prerequisite: 130-250.

**130-355 LINE AND HALFTONE PHOTOGRAPHY (137-376).** 2 Cr. A study of high contrast photogra-



phy as it relates specifically to the graphic reproduction processes. Emphasis is upon line, halftone, duotone, and special effect film negatives and positives. Prerequisite: 130-140.

**130-360 IMAGE CARRIERS (137-358).** 2 Cr. A study of the various types of relief, intaglio, planographic and stencil image carriers, with lab experiences in photographic, chemical and electronic scanning methods of producing line, halftone, and combination plates. Prerequisite: 130-140.

**130-365 IMAGE TRANSFER (137-236).** 3 Cr. A study in breadth of offset, letterpress, gravure, and screen process machines and associated procedures used to transfer an image from a carrier to an interceptor. Prerequisite: 130-140.

**130-370 GENERAL BINDING (137-370).** 2 Cr. Study in depth of fastening and covering printed materials. Includes mechanical, loose-leaf, wire staple, sewn, and perfect binding methods. Prerequisite: 130-140.

**130-414 TECHNICAL ILLUSTRATING (148-226).** 3 Cr. A study of concepts and drafting techniques to illustrate three-dimensional technical art forms. Axonometric and perspective drawings are used for the constructions and rendering techniques such as stippling, smudge, line, color, and airbrushing are utilized. Prerequisite: 130-212.

**130-433 TOOL AND DIE DESIGN (148-303).** 2 Cr. The study of the design and applications for jigs and fixtures for lathes, and mills. The study of milling cutters, lathe tools, boring bars, and gauges for checking work, die design, and punch presses. Prerequisite: 130-213, 372-325.

**130-467 RELIEF AND SCREEN PROCESSES (137-459).** 2 Cr. Study in depth of letterpress and screen process image transfer machines and associated procedures including printability of varied interceptors. Prerequisite: 130-365.

**130-475 PRINTING ECONOMICS (137-449).** 2 Cr. Estimating production costs, specification of equipment, materials inventory and control, and the study of systems which expedite graphic reproductions. Prerequisite: 130-140.

**130-527 TOPOGRAPHY (148-326).** 2 Cr. Calculate and convert previously compiled field work data into usable language for maps, profiles, and land descriptions. Prerequisite: 130-110.

**130-532 MACHINE DESIGN ELEMENTS (148-301).** 3 Cr. Analysis and design of machine elements including gearing, bearings, shafting, and friction devices. Prerequisites: 130-230, 372-325, 355-153, or 355-156.

**130-535 GRAPHIC ANALYSIS AND COMPUTATION (148-475).** 2 Cr. The study of fundamental graphical concepts, abstract graphic principles, formulas, and equations, vector geometry, and graphical concepts as they apply to modern engineering technology. Prerequisite: 355-153 or 355-156.

**130-557 COLOR SEPARATION (137-450).** 2 Cr. Study of the nature of color and light. Color separation from reflected and transmission copy. Theory of filters, densitometry, and their relation to color separation. Direct and indirect photographic color separation methods. Prerequisite: 130-355.

**130-615 INDUSTRIAL DESIGN WORKSHOP** (148-463). 2 Cr. Product design from the inception of the idea to marketing the product. Procedure and techniques will be illustrated—some opportunity for laboratory work. Prerequisite: 130-213.

**130-629 ARCHITECTURAL DESIGN III** (148-451). 3 Cr. Area planning; problems oriented toward design solutions of building complexes: exterior space, land use, relationships between buildings and supporting facilities. Survey of contemporary regional and city planning and its historical roots. Prerequisite: 130-325.

**130-636 COMPUTER ASSISTED DESIGN PROBLEMS** (148-476). 2 Cr. An introduction to the relationship of the computer to drafting and plotted design, design automation,

introduction to mechanical design problem analysis for computers, mathematical and simulation models for use in the solution of mechanical design problems. Prerequisites: 354-141 and 130-230.

**130-637 PRODUCT DEVELOPMENT** (148-434). 2 Cr. Independent research directed to the solution of a student-selected design problem requiring application of the sciences, industrial graphics, identification of manufacturing methods, marketing and cost analysis, and model or prototype construction when appropriate. Prerequisite: 130-230 or 130-221.

**130-638 MECHANICAL DESIGN PROBLEMS** (148-401). 3 Cr. A study of the design process. Solution of balancing, vibration, and inertia problems. Design of a complete machine. Prerequisite: 130-532.

## INDUSTRIAL MANAGEMENT

**150-115 STRUCTURES AND CONCEPTS IN AMERICAN INDUSTRY** (102-115). 2 Cr. An introduction to American Industry structures and concepts; history of the project. Systems for structuring knowledge. The concept structure of research.

**150-150 INDUSTRIAL ORGANIZATION** (150-290). 2 Cr. Survey of the basic functions and inter-relationships of the major subdivisions of industrial organizations.

**150-200 PRODUCTION MANAGEMENT** (150-300). 3 Cr. The manufacturing functions of Industrial Organization are expanded. A broad analytical "systems" viewpoint is used to develop competency in management decision making and prob-

lem solving. Prerequisite: 150-150 or 309-304.

**150-223 RELATIONSHIPS** (102-223). 2 Cr. Development of the concept area of industrial relationships as related to the elements, associations, incentives and control aspects.

**150-230 METHODS ENGINEERING** (150-320). 2 Cr. Introduction to Methods Engineering in business and industry, including better methods, process analysis, activity charting operation analysis, fundamental hand motions, micromotion study, motions economy, human engineering, standardizing job, work organization, paper-work simplification, and value engineering. Prerequisite: 150-150.



**150-240 WORK MEASUREMENT** (150-340). 2 Cr. Introduction to Work Measurement techniques in industry including stop-watch, work sampling, standard data and predetermined time systems particularly Methods Time Measurement and Master Standard Data, and wage incentive plans. Prerequisite: 150-150.

**150-310 PRODUCTION CONTROL** (150-410). 2 Cr. Introduction to industrial plant operations, production planning and control, forecasting, inventory control, production requirements, routing, scheduling, dispatching, and follow up. Prerequisites: 150-200 and 354-130.

**150-314 PRODUCTION SYSTEMS** (196-312). 3 Cr. The organization and operation of an industrial company. The selection, designing, production planning, production, marketing and distribution of a product.

**150-320 QUALITY CONTROL** (150-400). 2 Cr. General overview of Quality Control including: establishment of quality standards, inspection principles and organization, control chart theory and application, acceptance sampling, organizing for quality control. Prerequisite: 150-200, 354-130.

**150-402 PHYSICAL FACILITIES** (102-402). 2 Cr. A conceptual study of the holdings and possessions of an enterprise necessary to produce a goods and/or service. It is designed to acquaint the students with the methods and techniques utilized by industry in planning, classifying, controlling, maintaining and disposing of property within their possession. The course will permit the students to plan and develop an instructional facility with equipment essential to the understanding and simulation of industrial techniques.

**150-410 MANUFACTURING COST ANALYSIS** (150-413). 3 Cr. Introduction to principles of accounting, and concepts and techniques of cost analysis. Emphasis placed on application of cost information. Prerequisite: 150-200.

**150-417 FINANCE AND PROCUREMENT IN INDUSTRY** (102-417). 2 Cr. A conceptual study of the considerations and techniques involved in procuring and controlling necessary funds and property essential to organize and operate an enterprise. The course is designed to provide the students with an insight into the location, needs, methods and control of funds and possessions necessary to maintain an enterprise.

**150-420 TIME & MOTION STUDY** (REPLACED BY 150-230 & 150-240). 2 Cr. Introduction to Methods Engineering in industry, including developing better methods, process analysis, activity charting, operation analysis, micromotion study, fundamental hand motions, motion economy, determining standard times, work sampling, standard data, and predetermined time systems. Prerequisite: 150-200.

**150-440 PLANT LAYOUT AND MATERIALS HANDLING** (150-310). 3 Cr. Survey and application of the principles and methods used for solving plant layout and material handling problems. Prerequisite: 150-200.

**150-500 ENGINEERING ECONOMY** (150-424). 3 Cr. Analysis of the source and application of funds, including cost control, valuation, depreciation, replacement theory, and taxation. Prerequisite: 150-200.



**150-510 PRODUCTION PROCESSING** (150-428). 3 Cr. Production processes with special consideration to product design as related to economic production. Emphasis on factors which influence the choice and sequence of process to obtain an end product. Prerequisite: 150-200, 354-130.

**150-520 STATISTICAL QUALITY CONTROL** (150-442). 3 Cr. Application of statistics and probability theory in quality control. Emphasis on statistical theory underlying Schewart Control Charts, acceptance sampling plans, and introduction to design of experiment and analysis of variances. Prerequisite: 150-320.

**150-530 HUMAN FACTORS ENGINEERING** (150-430). 3 Cr. A survey of the areas of man-machine interface. The physiological and psychological abilities and senses of man will be examined, together with technological advances in the interface areas of control, working performance, reliability, comfort, and safety. (The emphasis will be on effective design of man and work environment as a cybernetic system.) Prerequisites: 479-110, 354-130.

**150-600 INDUSTRIAL SUPERVISION** (150-450). 3 Cr. An overview of the supervisor's role in accomplishing organizational objectives through the management of human resources. Concepts of organizational and individual behavior serve as a foundation for the development of such supervisory skills as communication, motivation, initiating change, discipline, delegation,

and handling grievances. Prerequisite: 150-200.

**150-610 INVENTORY MANAGEMENT** (150-470). 3 Cr. A course covering the principles and techniques of ordering, storing, issuing and control of inventory throughout the manufacturing process. Special attention will be focused on the principles and applications of the Economic Order Quantity, the reorder point, safety stock, material movement, warehousing and distribution of the finished product. Prerequisite: 150-200, 150-500.

**150-650 INTRODUCTION TO OPERATIONS RESEARCH** (150-445). 3 Cr. Business and industrial application of operations research techniques using linear programming, decision models, and Monte Carlo methods. Problem applications in allocation, sequencing, waiting lines, and competitive strategies. Prerequisite: 150-200, 354-130, 355-157, or 355-153.

**150-660 INDUSTRIAL MANAGEMENT** (150-460). 2 Cr. Principles and methods of analyzing and solving industrial problems. Application through case studies, management games, and special problems. Prerequisite: 150-150.

**150-x98 FIELD EXPERIENCE — AMERICAN INDUSTRY** (102-298). 2 Cr. Off-campus work and study in an approved position to better understand how the five environmental and thirteen concepts of industry function and interrelate. Prerequisite: 150-115.

## MATERIALS AND PROCESSES

**170-101 PROCESSES I (102-123).** 4 Cr. Conceptual study, including application, of the area of industrial processes generated by the basics of growing, extraction, conditioning, and combining.

**170-202 METALS (157-102).** 2 Cr. Introduction and orientation to the metals field. Equal time in machine shop, welding, foundry, and sheet metal. Exploratory experiences are provided in the four areas with fundamental operations and related technical information.

**170-203 WOODWORKING (196-103).** 2 Cr. A study of wood, modified wood, wood products, and the wood-working industry. Technical information on physical properties and characteristics of wood; basic techniques and procedures of furniture construction and building construction.

**170-209 GENERAL FINISHING (196-209).** 2 Cr. Technical information and application of finishes to various materials. Color theory, spraying, baking, drying, polishing, spot finishing, and re-finishing.

**170-230 MACHINE SHOP (157-113).** 2 Cr. Basic experiences on the engine lathe, drill press, milling machine, grinder and shaper. Hand tools and related information appropriate to fundamental operation is given. Prerequisite: 170-101 or 170-202.

**170-241 MACHINE WOODWORKING (196-131).** 2 Cr. Technical

information of wood industry materials and equipment. Job planning, organizing and preparation. Fundamental principles of wood and allied material processing. Prerequisite: 170-203.

**170-250 PLASTICS I (196-203).** 2 Cr. A study of the materials and processes of the plastics industry. Technical information on the characteristics and properties of thermoplastic and thermosetting materials and processing equipment.

**170-260 SHEET METAL (157-210).** 2 Cr. Fundamental machine and hand tool operations, soldering, pattern development, and related information. Discussions on materials equipment and supplies. Prerequisite: 170-101 or 170-202.

**170-270 BUILDING CONSTRUCTION I (196-219).** 2 Cr. A study of terminology, materials, tools, and equipment used in the construction industry with emphasis on residential and small commercial structures. Prerequisite: 170-203.

**170-280 PACKAGING FUNDAMENTALS (150-215).** 2 Cr. An introduction to the packaging industry. The relationship to marketing and consumer behavior; its control through legal and industrial regulations, the functions as part of the larger organization; packages and their functions, role of the professional packaging manufacturer.

**170-301 DESIGN IN WOOD (196-311).** 3 Cr. Study and application

of basic principles of design utilizing wood and allied materials. Research, testing and completion of individual and group projects. Prerequisite: 170-101 or 170-203.

**170-304 INDUSTRIAL CRAFTS** (100-253). 2 Cr. Study of craft industries including tool, processes, products from leather, fiber, metal, and wood material. Laboratory work in the use of above materials.

**170-307 DIMENSIONAL METROLOGY** (100-481). 2 Cr. A study of the science of measurement, including all aspects of measurement from mechanical systems, such as micrometers, to systems using physical properties such as optical flats—scales, micrometers, verniers, gage blocks, optical flats, and lasers. Prerequisite: 170-101 or 170-202.

**170-308 PAINTING AND DECORATING** (196-221). 2 Cr. Application of color theory, color mixing, painting, graining, stenciling, marbling, mottling, strippling, texturing, dry wall construction, and interior design.

**170-310 MATERIALS** (102-310). 2 Cr. Development of the concept area of materials as related to the approach being taken by industry. Students become involved in selection, utilization and testing different systems.

**170-313 WOOD TECHNOLOGY** (196-207). 3 Cr. Forest management, structure of wood, properties of wood, defects of wood, modifying wood, bonding wood, testing procedures and trends in wood based industries.

**170-315 PACKAGING MATERIALS** (150-304). 3 Cr. A study of the origin, composition, properties, and applications of packaging materials. Lab problems relating to standard materials testing methods. Prerequisite: 170-280.

**170-331 MACHINE SHOP** (157-235). 2 Cr. Advanced shop practice; sharpening of lathe tools, twist drills, milling cutters, taper turning, grinding externally and on flat surfaces. Gear cutting on milling machine. Heat treating and layout techniques. Prerequisite: 170-230.

**170-333 MACHINE SHOP III** (157-237). 2 Cr. Spiral milling, tool making, and cutter grinding, cylindrical grinding, maintenance. Prerequisite: 170-331.

**170-344 CABINET WORK I** (196-215). 2 Cr. Problem solving, testing of materials, and advanced technical information. Construction of a major cabinetmaking project. Prerequisite: 170-241.

**170-346 GENERAL WOODWORKING** (196-316). 2 Cr. General Unit shop organization, upholstery and wood turning. Experience in organization and presentation of content in woodworking as it relates to the total industrial arts program. Prerequisite: 170-101 or 170-203.

**170-355 FOUNDRY** (157-243). 2 Cr. Instructional units on foundry processes; sand analysis, core making, gating and risering, casting defect analysis, furnaces, melting and fluxing, pouring of aluminum. Discussion units on the casting of other non-ferrous and ferrous metals. Prerequisite: 170-101 or 170-202.



**170-356 PATTERNMAKING** (196-225). 2 Cr. Application of pattern-making principles, using wood, wax, plaster and plastic materials for foundry. Prerequisite: 170-203.

**170-360 PATTERN DRAFTING** (157-239). 2 Cr. Advanced pattern development involving parallel line, radial line, and triangulation. Advanced shop practice. Care and maintaining of equipment. Prerequisite: 170-260.

**170-365 WELDING I** (157-455). 2 Cr. Fundamentals of electric arc and oxy-acetylene welding processes in the flat position; manufacture and handling of gases; selection and types of equipment; routine maintenance; types of electrodes, coatings applications. Prerequisite: 170-101 or 170-202.

**170-370 BUILDING CONSTRUCTION II** (196-319). 2 Cr. A study of structural building systems and related mechanical installations. Prerequisite: 170-270.

**170-372 HEATING AND AIR-CONDITIONING** (157-330). 3 Cr. Principles of heating, heat energy, heating system, calculation of heating loads, heating drawings, burners, and control systems.

**170-380 PACKAGING SYSTEMS** (150-324). 3 Cr. The study of packaging from the design phase through production. Lab work on structural design, sample making and package evaluation. Prerequisite: 170-280.

**170-430 MACHINE SHOP** (157-435). 2 Cr. Advanced production process; tooling problems and their solution by creative planning of

set-ups. Designing and building of fixtures and jigs as necessary to solve problems. Prerequisite: 170-333.

**170-453 PLASTICS MOLD MAKING** (157-423). 2 Cr. The student is required to design a metal mold for a plastic item and progress through the construction stages to the point where the mold will produce finished work pieces. A problem solving course in a specialized technical area. Prerequisite: 170-202.

**170-459 CAST METALS SEMINAR** (100-490). 2 Cr. Course covers history, general principles and scope of casting technology including metallurgy, melting, molding, sand and core practice, solidification, microstructures, machinability and quality control.

**170-460 METAL FORMING & FABRICATION** (157-241). 2 Cr. Cabinet work involving direct layout with extensive work on the cornice and press brake. Spot welding. Discussion on selection and purchasing of supplies. Prerequisite: 170-260.

**170-480 PACKAGING DESIGN AND EVALUATION** (150-425). 3 Cr. Discussions on the chemical and physical protection problems. Package design with reference to materials, structure, graphics, and regulations. Package evaluation in terms of shock and vibration forces. Practical applications of evaluation using electronic instrumentation. Prerequisite: 170-380.

**170-505 TOOL AND MACHINE CONDITIONING** (196-464). 2 Cr. Technical information on wood-working equipment, cutting theory,

safety, and shop organization. Maintenance of woodworking machines, saw fitting, and general hand tool fitting. Prerequisite: 170-101 or 170-203.

**170-507 MAINTENANCE OF METAL WORKING EQUIPMENT (157-462).** 2 Cr. Repair and preventive maintenance of machine tool equipment. Emphasis on use of universal tool and cutter grinder. Alignment, fitting, and adjustment of precision machine tools, preventative maintenance of welding equipment and sheet metal fabrication tools. Prerequisites: Two of the following: 170-230, 170-260, 170-365.

**170-510 INDUSTRIAL MATERIALS (100-520).** 4 Cr. A broad technical study of common industrial materials normally dealt with and used for a multitude of industrial and domestic applications. The study of materials will begin with a review of the structure of matter continuing then to consider the material families for common properties and significantly different characteristics. Prerequisite: 311-115.

**170-515 METALLURGY (157-418).** 3 Cr. Properties of crystalline solids, production of iron and steel, the carbon-iron equilibrium diagram, principles of heat treatment, properties of ferrous alloys. Production, properties, and theory of the most important non-ferrous metals and alloys. Prerequisite: 311-115.

**170-535 TOOL AND DIE MAKING (157-461).** 2 Cr. Operations and technical information units for selected examples of single station cutting dies; drawing, expanding, non-cutting, assembling, progressive, and finishing dies. Layout, fabrication methods and operations involved are planned by the student. Prerequisite: 170-333.

**170-537 NUMERICAL CONTROL IN MANUFACTURING (157-464).** 3 Cr. An investigation of numerical control of machine tools, justification of numerical control, types of control units and systems, feedback systems, manuscript writing and manual programming, tape punching and machine set up, fixture design and tool setting. A working knowledge of the basic machining processes is recommended. Prerequisite: 170-101 or 170-202.

**170-550 PLASTICS II (196-440).** 2 Cr. Technical information relating to plastic materials and to tooling design for plastics. Product development with emphasis on experimental design in tooling and quality control. Prerequisite: 170-250.

**170-565 WELDING II (157-457).** 2 Cr. Advanced work in arc and oxy-acetylene welding techniques; vertical, horizontal, overhead positions; destructive and non-destructive testing; MIG and TIG welding processes; oxy-acetylene machine and air carbon arc cutting. Prerequisite: 170-365.

**170-570 BUILDING CONSTRUCTION III (196-421).** 2 Cr. A study of current trends in the construction industry based on recent research and developments related to construction materials and techniques. Prerequisite: 170-370.

**170-637 NUMERICAL CONTROL II, PROGRAMMING FOR CONTINUOUS PATH CONTROLS (157-474).** 3 Cr. Application of the computer for generating programs to machine curved, non-symmetrical surfaces. Involves mathematical concepts of N/C. Interpolation of surfaces between points by straight line or logarithmic methods, writing computer programs and proving problems. Field trips to industries using numerical control equipment. Prerequisite: 170-537.



## INDUSTRIAL TEACHER EDUCATION

**190-160 INTRODUCTION TO INDUSTRIAL EDUCATION** (449-160). 1 Cr. An introduction to current programs, facilities, and opportunities in teaching American Industry, industrial arts, vocational, technical and adult education. Different kinds of programs will be examined as to their purpose in the field of education. Students will develop personal plans and goals in relation to the future direction of these programs.

**190-205 METHODS OF TEACHING INDUSTRIAL EDUCATION** (449-305). 2 Cr. Study of teaching methods in use in youth and adult shop classes. Instruction planning; methods of organization and management; instruction aids; professional ethics. Prerequisite: 190-160.

**190-404 CURRICULUM DEVELOPMENT** (449-404). 5 Cr. Development of an orderly procedure for the identification of concepts; generalizations and instructional units to be used in teaching. Course outlines, analysis of content, lesson planning, evaluation, management. Prerequisite: 190-160 or 190-205.

**190-408 STUDENT TEACHING** (449-408). 8 Cr. Directed teaching and community experiences in selected off-campus schools. Prerequisites: 190-160, 190-404, 190-205, 421-303.

**190-434 TASK ANALYSIS** (449-234). 2 Cr. Study of analysis of activities for instructional purposes

and for personnel work. Jobs operations, information topics, blocking, custom occupations, service occupations, checking level, progression factors defined.

**190-488 INTERNSHIP TEACHING** (449-488). 8 Cr. An alternate method of obtaining student teaching experience. Teacher interns receive a license to teach and salaried appointments in cooperating school systems for one full semester. Prerequisites: 190-205 and 190-404.

**190-525 INDUSTRIAL ARTS FOR ELEMENTARY TEACHERS** (449-425). 2 Cr. Development, philosophy, objectives, and course organization for industrial arts for the elementary schools. Suitable laboratory work in woods, metals, plastics, and drawing.

**190-533 SHOP PLANNING AND EQUIPMENT SELECTION** (449-433). 2 Cr. Principles of school shop planning including equipment selection and placement, plus selection, care, and arrangement of supplies. Prerequisite: 190-404 or equivalent.

**190-637 SCHOOL SHOP ORGANIZATION AND MANAGEMENT** (449-437). 2 Cr. Experience in administration, project development and teaching problems associated with industrial education. Prerequisite: 190-205.



## THE SCHOOL OF HOME ECONOMICS

J. ANTHONY SAMENFINK, ED.D., DEAN

Programs: Child Development and Family Life  
Clothing, Textiles and Design  
Dietetics  
Early Childhood Education  
Fashion Merchandising  
Food Service Administration  
Home Economics in Business  
Home Economics Education  
Home Economics General  
Hotel and Restaurant Management

### INTERDEPARTMENTAL

**200-681 PROBLEMS IN HOME ECONOMICS (200-481).** 2 Cr. This course will deal with special problems in depth as initiated by an instructor or according to student needs and interests. This course should serve as a culminating educative experience for students in the various areas of home economics.

**200-698 NATIONAL STUDY TOUR IN HOME ECONOMICS (200-498).** 1-3 Cr. Group membership limited to 20 and majors of the particular area to be studied have priority. Study visit to a major United States city relating student's learning in his major area to business and industry.

### HUMAN DEVELOPMENT AND FAMILY LIVING

**212-124 CHILD DEVELOPMENT I.** 3 Cr. A developmental study of the child from conception through adolescence, including physical, intellectual, social and emotional growth. Observation required.

**212-204 INTRODUCTION TO TEACHING EARLY CHILDHOOD EDUCATION (477-204).** 3 Cr. An introduction to early childhood education, program management, classroom arrangement, guidance principles, sensory stimulation, enhancement of self, and creative ex-

pression with young children. Prerequisites: 212-264 & 212-124.

**212-235 CHILD DEVELOPMENT LABORATORY.** 1 Cr. Observations in the Child and Family Study Center culminating in a personality study of a child. Prerequisite: 212-124.

**212-250 FAMILY RELATIONSHIPS I.** 3 Cr. Dynamics of social-psychological forces affecting family interaction. Explorations of courtship, husband-wife, parent-child relationships.

**212-264 CHILD GUIDANCE.** 2 Cr. Study of principles relevant to guidance of children. Evaluation of literature and application of studies to children. Observation experiences in the study of young children.

**212-265 CHILD GUIDANCE LABORATORY.** 1 Cr. Supervised participation in the Child and Family Study Center with emphasis on guidance techniques and understanding of children. Prerequisite: 212-264.

**212-303 CURRICULUM I: LANGUAGE ARTS & SOCIAL SCIENCES IN EARLY CHILDHOOD EDUCATION (477-133).** 2 Cr. Development of methods and techniques necessary for teaching language arts and social studies to young children with particular emphasis placed on effective social and communications skills and experiences. Prerequisite: 212-204.

**212-324 CHILD DEVELOPMENT II.** 3 Cr. An empirical study of the physiological, intellectual, social and emotional development of children. Prerequisites: 212-124 and 212-264.

**212-333 CURRICULUM II: SCIENCE & MATHEMATICS IN EARLY CHILDHOOD EDUCATION (477-333).** 2 Cr. Directed study for the application of skills in order to teach mathematics and science concepts appropriate for early childhood education, including organization and presentation of teaching-learning experiences for children in early learning situations. Prerequisite: 212-204.

**212-342 CREATIVE ACTIVITIES FOR YOUNG CHILDREN.** 3 Cr. Curriculum, methods and materials, related to music, art, and creative movement activities for the

young child. Prerequisite: 212-124 or 212-264.

**212-350 FAMILY RELATIONSHIPS II.** 3 Cr. A study of the family with emphasis on environmental factors significant in marriage and family relationships. Prerequisite: 212-250.

**212-407 PARENT EDUCATION (212-307).** 2 Cr. A study of parent groups, the training of parent-group leaders, a survey of the literature in this field. Practicum with parent groups. Prerequisite: 212-264.

**212-408A STUDENT TEACHING IN EARLY CHILDHOOD CENTERS (477-408A).** 4 Cr. Directed teaching and community experience in selected early childhood centers. Prerequisite: 212-333.

**212-408B STUDENT TEACHING IN KINDERGARTEN (477-408B).** 4 Cr. Directed teaching and community experience in selected kindergartens. Prerequisite: 212-303.

**212-433 CURRICULUM III: TEACHING READING IN EARLY CHILDHOOD EDUCATION (477-333).** 2 Cr. A study and evaluation of current philosophies, methodology, and materials in the teaching of reading with special emphasis on readiness activities and beginning reading in early childhood. Prerequisite: 212-333.

**212-488 INTERN TEACHING (477-488).** 8 Cr. An alternate method of obtaining student teaching experience. Teacher interns receive license to teach and salaried appointments in cooperating school systems for one full semester. Prerequisite: 212-333.

**212-535 SEMINAR ON SELF-GROWTH (212-435).** 2 Cr. A seminar based on a study of theories of the self. Exploration of selected aspects of self-development and actualization. Prerequisite: 212-324 or 212-350.

**212-581 DYNAMICS OF MARITAL INTERACTION (212-481).** 2 Cr. Patterns of husband-wife power distribution, task differentiation, decision making, communication, role adaptation, and marital satisfaction over the family life cycle. A theoretical analysis of marital behavior within the family as a social system.

**212-598 AMERICAN STUDY TOUR IN CHILD DEVELOPMENT (212-498).** 2 Cr. Study tour of child development centers. Discussions, and lectures by leaders in the field of child development.

**212-607 PARENT COUNSELING (212-407).** 2 Cr. Various approaches and techniques of working with parents. Observation and experience with problems parents face in child-rearing. Prerequisites: 212-124 and 212-264.

**212-624 ADVANCED CHILD STUDY (212-424).** 3 Cr. A study of principles and review of literature pertaining to children. Prerequisites: 212-124 and 212-264.

**212-626 SPECIAL TOPICS IN THE STUDY OF FAMILY LIFE (212-426).** 3 Cr. A review of programs and literature related to family life with opportunity for individual study of problems of personal or professional interest. Prerequisite: 212-350.

**212-637 SEMINAR IN CHILD DEVELOPMENT (212-437).** 2 Cr. Exploration in depth of special problems and aspects in child development field with preference given to student's interest.

**212-664 PROBLEMS IN EARLY CHILDHOOD CURRICULUM (477-564).** 3 Cr. Philosophy and methodology of Early Childhood Education with emphasis on problems confronting teachers in this area. Prerequisite: 212-303.

**212-665 ADMINISTRATION OF EARLY CHILDHOOD EDUCATION PROGRAMS (447-465).** 2 Cr. A study of program organization, program design, staffing, licensing, certification, equipment and facilities for operating Early Childhood Education programs. Field trips required. Prerequisite: 212-408B.

**212-685 SEMINAR ON THE CULTURALLY DISADVANTAGED CHILD AND FAMILY (212-485).** 3 Cr. Study of problem, needs, related research and current trends to assist the disadvantaged child and family toward fuller actualization of potentialities for self and society. Prerequisite: 212-324 or 212-350.



## APPAREL, TEXTILES AND DESIGN

**214-060 INTRODUCTION TO APPAREL CONSTRUCTION** (214-100). 0 Cr. This course is designed to prepare students with no experience in construction for 214-266. It will develop an understanding in the use of the sewing machine, pattern, and fabric.

**214-110 MALE-FEMALE APPAREL** (214-105). 1 Cr. A study of the elements and organization of design as they relate to contemporary apparel for men and women.

**214-117 CLOTHING AND BEHAVIOR** (214-107). 1 Cr. A study of the function of clothing and how culture, society and the individual influence clothing choices.

**214-120 APPAREL PRINCIPLES** (214-112). 3 Cr. A study of principles of garment construction, fit and alteration with emphasis on ready-to-wear garments in the fashion industry.

**214-140 TEXTILES I** (214-125). 3 Cr. Fibers, yarns, fabric construction, finishes, and design as applied to the selection of clothing and household fabrics.

**214-225 CLOTHING AND TEXTILE INDUSTRY** (214-273). 3 Cr. The clothing and textile industry, its organization, promotion methods, and the interrelationship of the major factors of industry and its markets. Prerequisite: 214-140.

**214-266 APPAREL CONSTRUCTION** (214-230). 3 Cr. A study of apparel construction theory, principles of fitting and their applica-

tion to the construction of garments. It is recommended that Textiles I be taken prior to this course.

**214-319 ECONOMICS OF CLOTHING**. 3 Cr. Analyzation of garments or products for making discriminating choices in relation to desired use.

**214-325 FASHION MERCHANDISING I**. 3 Cr. Merchandising with application of fundamentals for selling, buying and marketing procedures.

**214-402 CLOTHING AND TEXTILES PROBLEMS** (214-482). 2 Cr. Individual investigation in one specific field of interest within clothing and textiles. Opportunity to correlate clothing and textiles with related fields.

**214-425 FASHION MERCHANDISING II** (214-435). 3 Cr. Advanced principles for successful merchandising of fashion goods; buying and marketing procedures. Analysis of customer demands. Individual problem required. Prerequisite: 214-325.

**214-429 TEXTILE ECONOMICS**. 3 Cr. Textile market conditions. Patterns of textile consumption in business and industry, and their indirect relationship to the individual and family. Prerequisites: 214-225, 320-210 and 320-215.

**214-466 COUTURE TECHNIQUES** (214-430). 2 Cr. Application of couture techniques to apparel and experimentation with unusual fabrics. Prerequisite: 214-266.

**214-580 FLAT PATTERN** (214-313). 3 Cr. A study and application of the techniques of pattern designing through drafting methods. An original garment is designed and constructed. Prerequisite: 214-266.

**214-590 PRACTICUM IN TEXTILE DESIGN** (214-331). 3 Cr. An exploratory course devoted to the use of the following textile design techniques as a means of artistic expression: stitchery, weaving, knotting, applique and hooking. Emphasis will be placed on good design and creativity. Prerequisite: 304-101.

**214-592 PRACTICUM IN TEXTILE PRINTING** (214-337). 2 Cr. Exploring use of textile design techniques—primarily silk screen, tie dye, printing, and batik. Emphasis will be placed on good design and creativity. Prerequisite: 304-101.

**214-602 PROBLEMS IN HOME ECONOMICS** (214-481). 2 Cr. This is a special course usually taught by a visiting instructor.

**214-605 EUROPEAN STUDY TOUR** (214-465). 3-6 Cr. Tour of European centers of art, clothing, and textiles. Study of the cultural patterns. Six week program includes lectures by consultants and seminars on the various phases of the fashion and fabric industries.

**214-610 HISTORY OF COSTUME: ANCIENT TO EUROPEAN 1900** (214-471). 3 Cr. Development of costume throughout the ages. Fashion as it reflects the cultures of the past and influences present-day costume.

**214-611 HISTORY OF AMERICAN COSTUME** (214-475). 2 Cr. American costume as it evolved from colonial to contemporary times with emphasis on costume characteristics and social, political, religious and cultural influences.

**214-617 SOCIAL-PSYCHOLOGICAL ASPECTS OF CLOTHING** (214-480). 3 Cr. The social significance of clothing to an individual and the influence it has upon his behavior.

**214-639 NATIONAL STUDY TOUR TO FASHION INDUSTRY** (214-498). 1 Cr. Five day visit in New York City (or alternate city). Program will involve study hours, discussions, and lecture by leading people in American fashion market.

**214-640 TEXTILES II** (214-407). 2 Cr. Problems involving fiber identification, fabric performance, and fabric care. Chemical and microscopic testing procedures. Investigation methods for gathering and interpreting data. Individual problems. Prerequisite: 214-140.

**214-655 RECENT DEVELOPMENTS IN CLOTHING AND TEXTILES** (214-479). 2 Cr. Various areas of apparel and textile are explored in light of new developments in these and related fields. Prerequisites: 214-140 and 214-266.

**214-666 TAILORING** (214-450). 3 Cr. Application of tailoring techniques in making suits and coats. Prerequisite: 214-266.

**214-680 DRAPING** (214-412). 3 Cr. Application of draping principles in the designing and construction of garments. Emphasis on creativity. Prerequisite: 214-266.



**214-685 APPAREL DESIGN** (214-439). 2-4 Cr. Development of designs and construction of apparel using advanced techniques. Prerequisite: 214-580 or 214-680.

**214-693 STRUCTURAL DESIGN & WEAVING** (214-431). 2 Cr. A studio course involving experiences in weaving and other structural techniques. Prerequisite: 304-101.

**214-695 DECORATIVE FABRICS** (214-411). 2 Cr. Study of historic

and contemporary fabrics with analysis of designs and techniques of decorating fabrics. The contribution of decorative fabrics to the enrichment of human experience.

**214-x98 FIELD EXPERIENCE — FASHION MERCHANDISING** (214-298). 2 Cr. Off-campus work and study in an approved position to better understand the challenges and potentials of various careers in the merchandising area. Prerequisite: 214-225 or 214-325.

## FOOD SERVICES AND NUTRITION

**229-114 FOOD FUNDAMENTALS.** 4 Cr. Basic scientific concepts related to the selection and preparation of food.

**229-124 FOODS.** 2 Cr. The consumer's use of scientific principles in the selection, preparation and service of foods.

**229-125 FOOD PRACTICUM.** 2 Cr. Practical application of the scientific principles of food preparation. Prerequisite: 229-124.

**229-212 NUTRITION.** 3 Cr. Principles of human nutrition and application in the selection of food for members of the family group.

**229-240 FOOD SCIENCE.** 3 Cr. Study of physical and chemical changes as they affect the selection, preparation and service of food. Prerequisite: 311-201.

**229-318 MEAL MANAGEMENT PRACTICUM.** 2 Cr. Practical ap-

plications and problem-solving using principles of food economics, meal management, and food service for family-sized consumer groups. Prerequisites: 229-124, or 229-240, 229-212.

**229-410 NUTRITION AND DIETETICS** (229-310). 3 Cr. Principles of human nutrition applied to individual, family, community, and world problems. Prerequisites: 229-212, 308-362, 311-511.

**229-418 ADVANCED MEAL MANAGEMENT PRACTICUM.** 2 Cr. Individualized problem-solving of critical incidences in meal management: variations of meal service for entertaining, meals at different economic levels, use of specialized equipment in meal preparation and service, and other interrelated problems. Prerequisite: 229-318.

**229-446 FOOD PRESERVATION.** 1 Cr. Principles and practical application of methods of food preservation and storage.



**229-618 DIET THERAPY** (229-418). 3 Cr. Principles and methods for the use of diet as a therapeutic measure in certain pathological conditions. Prerequisite: 229-410.

**229-631 READINGS IN FOOD SCIENCE AND NUTRITION** (229-431). 2 Cr. Critical reading, evaluating, and reporting from pertinent current journals and other publications. Prerequisites: 229-212, 311-115, or 311-135, 308-132.

**229-633 MATERNAL AND CHILD NUTRITION** (229-433). 3 Cr. Application of basic knowledge to maternal, infant, child, and adolescent nutrition. Prerequisites: 229-212, 212-124, 308-132.

**229-638 EXPERIMENTAL FOODS** (229-438). 3 Cr. Experimentation

with selected food materials, techniques, and equipment. Opportunity for directed study in an individually chosen area. Prerequisites: 229-125 or 229-240, 311-201.

**229-642 ADVANCED FOODS** (229-442). 2 Cr. Comparative studies of food selection and preparation; appraisal of foods. Prerequisite: 229-125 or 229-240.

**229-661 SOCIAL AND CULTURAL ASPECTS OF FOOD** (229-461). 2 Cr. Social, economic, and cultural influence on man's food patterns.

**229-665 EUROPEAN FOODS STUDY TOUR** (229-465). 3 or 6 Cr. Tour to study cultures, food patterns, and different phases of food industries in Europe.

## HUMAN DEVELOPMENT AND FAMILY LIVING

**242-101 EXPERIENTIAL LEARNING IN HOME ECONOMICS.** 1 Cr. Analysis of the contribution of Home Economics education in the development of individuals and families and identification of the responsibilities of a professionally trained home economist.

**242-201 TEACHING TECHNIQUES IN HOME ECONOMICS.** 1 Cr. Study of teaching techniques and skills for home economics learning experiences in relation to classroom organization and objectives.

**242-240 CLINICAL EXPERIENCE IN MICRO-TEACHING.** 1 Cr. Video-taped micro lessons with micro classes will be reviewed for self

evaluation and critique with instructor.

**242-241 CLINICAL EXPERIENCES IN THE COMMUNITY.** 1 Cr. Plan and implement home economics learning experiences for children and adults in community programs.

**242-301 HOME ECONOMICS CURRICULUM.** 2 Cr. Development of curriculum to meet the needs of student in home economics programs.

**242-320 METHODS OF TEACHING HOME ECONOMICS.** 2 Cr. Principles of teaching applied to

the selection, organization, and development of home economics subject matter. For dietitians and other groups with specialized needs. Prerequisite: 421-303.

**242-341 CLINICAL EXPERIENCES IN SCHOOLS.** 1 Cr. Supervised experience in classroom teaching for development of motor, perceptual, social and cognitive learning through Home Economics substantive areas. Prerequisite: 242-240.

**242-350 LABORATORY TECHNIQUES FOR TEACHING.** 1 Cr. Develop laboratory techniques for managing human and material resources to promote learning in a single purpose or diversified home economics laboratory.

**242-443 CLINICAL SEMINAR IN HOME ECONOMICS EDUCATION.** 2 Cr. Preparation for and evaluation of the student teaching experience. Emphasis on analysis of the classroom situation and evaluation of the teaching process. Prerequisite: 242-301 recommended; Parallel enrollment 242-444 required.

**242-444 PRACTICUM IN TEACHING HOME ECONOMICS.** 6 Cr. Practicum designed to provide experience in applying knowledge of theory of teaching and learning. Emphasis on self-evaluation and analysis of the teaching learning situation under the guidance of a master teacher. Prerequisite: 242-301 recommended; parallel enrollment 242-443 required.

**242-488 INTERNSHIP TEACHING** (442-488). 8 Cr. An alternate method of obtaining student teaching experience. Teacher interns receive a license to teach and salaried

appointments in cooperating school systems for one full semester. Prerequisite: 242-301.

**242-503 PROGRAMS IN HOME ECONOMICS FOR THE MIDDLE SCHOOL** (242-303). 2 Cr. Development of techniques, materials, and curriculum concepts in Home Economics with the application of principles of human growth and development for teaching in the middle school.

**242-620 VOCATIONAL PROGRAMS IN HOME ECONOMICS** (242-420). 2 Cr. Techniques, materials and curriculum for wage earning programs in Home Economics in the secondary and post-secondary school. Preliminary procedures for program development included. Prerequisites: 242-301, 469-602.

**242-623 EDUCATION FOR CONSUMER HOMEMAKING** (242-423). 1 Cr. Development of curriculum including evaluation of methods and materials for teaching Consumer Education at secondary level. Prerequisite: 242-301.

**242-625 OCCUPATIONAL EDUCATIONAL IN CLOTHING SERVICES** (442-420). 2 Cr. Development of the concept of occupational education in secondary, post secondary and adult programs in home economics; specifically related to a cluster of courses in clothing services.

**242-630 CONCEPTS OF EXTENSION EDUCATION** (442-430). 3 Cr. Study of the concepts and processes involved in conducting educational programs for adult and youth; includes philosophy, objectives and organization of Extension Education, leadership, devel-



opment, program development, teaching methods and evaluation.

**242-651 FAMILY LIFE EDUCATION PROGRAMS (242-451). 2**

Cr. Development of family life education programs including methods, materials and techniques for teaching family relationships and child development at the secondary level.

## HABITATIONAL RESOURCES

**245-105 MANAGEMENT FUNCTIONS FOR THE RESOURCES OF HABITAT. 1 Cr.** A survey course of the basic functions of management as they apply to the resources of habitat.

**245-110 BASIC FOODS. 4 Cr.** Basic principles of food preparation, fundamentals of nutrition, understanding interaction of foods and preparation methods, analysis techniques of production problems, standard formulas, and essentials of quality products.

**245-140 INTRODUCTION TO HOTEL AND RESTAURANT MANAGEMENT (245-101). 3 Cr.** Development of historical background, the economics of tourism, vocational opportunities, basic system and organizational analysis, research, trends in industry and problems of current importance.

**245-211 QUANTITY FOOD PRODUCTION (245-310). 3 Cr.** Concepts for the preparation of food in quantity. Menu planning, recipe development, management and cost control. Prerequisite: 245-110.

**245-220 MAINTENANCE AND SANITATION (245-205). 3 Cr.** The responsibilities of the housekeeping department and the maintenance department in providing sanitary, attractive facilities and

prolonging the life of the building and equipment. Emphasis is placed in proper food handling in the kitchen.

**245-222 INSTITUTIONAL FOOD PURCHASING (245-454). 2 Cr.** Methods of purchasing food in large quantities. Determination of standards, specific needs and industrial offerings; formulation of specifications, buying procedures, and controls. Prerequisite: 245-110 or 229-124.

**245-235 THE HUMAN HABITAT. 3 Cr.** The relationship of space, equipment, and aesthetic and cultural aspects to human habitat. Prerequisite: 245-105.

**245-275 MANAGEMENT OF FAMILY RESOURCES. 3 Cr.** Application of the basic concepts of management to family and consumer economics. Prerequisite: 245-105.

**245-300 HOTEL AND RESTAURANT MANAGEMENT (245-305). 3 Cr.** Management principles pertinent to hotels and restaurants, supervisory development and training, labor relations, union contracts, ownership and financial structure, and managerial interpretation and evaluation of current systems and procedures. Prerequisite: 245-140.



**245-306 HOME MANAGEMENT THEORY** (244-304). 3 Cr. Study of principles relating to management within the home and the use of resources in achieving family goals. Emphasis on decision-making process.

**245-312 CATERING I** (245-320). 3 Cr. Service of special functions, banquets, receptions, etc. Emphasis is placed on planning, preparation service, menu planning, cost controls, classical buffet set-ups and personnel organization. Prerequisite: 245-110, 245-211.

**245-330 ECOLOGY OF THE HOME.** 3 Cr. A study of individual and family socio-economic behavior in rearranging the physical environment in the home to meet special desires and possible future relationships with the infinitely more complex ecological consequences. Basic knowledge of physical and social sciences is needed.

**245-345 MERCHANDISING AND SALES** (245-316). 3 Cr. Effects of location, internal and external merchandising programs, definition of markets, group and convention business, public relations, and evaluation of programs. Prerequisite: 245-140, 245-300.

**245-355 HOME EQUIPMENT AND HOUSEHOLD PHYSICS** (244-333). 3 Cr. Application of general laws and principles of physics to household appliances. Selection, operation, use, and care of home equipment.

**245-360 CONSUMER ECONOMICS** (244-317). 3 Cr. Motives in consumption; family income and expenditures, selection of commodities and services; buying and selling practices. Evaluation of con-

sumer aids and investigation of local situations. Prerequisite: 320-201.

**245-370 HOTEL AND RESTAURANT ACCOUNTING** (245-301). 3 Cr. A study in the design and interpretation of specialized accounting and financial control systems in management decision-making. Emphasis will include uniform system of accounts, departmentalized costing procedures, statement analysis and interpretation. Prerequisite: 309-206, 309-207.

**245-371 FOOD AND BEVERAGE CONTROL** (245-315). 3 Cr. Basic costing concepts for food and beverages, control systems, analysis methods and correction procedures in a food service operation. Prerequisites: 309-206, 309-207.

**245-402 SCHOOL FOOD SERVICE ADMINISTRATION** (229-443). 2-3 Cr. Management of type A school lunch program. Recent developments in food selection and preparation, equipment, cost control, sanitation, and personnel management. Prerequisite: 229-318.

**245-404 FOOD SERVICE MANAGEMENT FOR CHILD DEVELOPMENT CENTERS** (229-458 and 212-458). 2 Cr. Administration of food service for preschool children in centers, with consideration of individual needs and emotional reactions to food, meal planning, purchasing, receiving and storage, principles of food preparation and service, and equipment. Prerequisite: 229-114.

**245-414 HAUTE CUISINE.** 3 Cr. The study and preparation of classical food items and service culminated with the serving of a formal banquet. Prerequisite: 245-312.

**245-436 LIGHTING FOR RESIDENTIAL INTERIORS (244-441).** 2 Cr. Practical information on light for general residential living. Emphasis will be made on the sociological, psychological and physical aspects of the lighting environment.

**245-456 MICROWAVE OVEN (244-456).** 2 Cr. Application of microwave heating principles to the preparation and service of foods.

**245-482 SEMINAR IN HOTEL AND RESTAURANT MANAGEMENT (245-465).** 3 Cr. An advanced course in management. The student will select and research a current topic of importance to the industry. Prerequisites: 245-140 and 245-300.

**245-485 DEMONSTRATION TECHNIQUES (244-400).** 2 Cr. Application of demonstration principles in planning and presenting all types of Home Economics demonstrations.

**245-498 AMERICAN STUDY TOUR IN BUSINESS AND INDUSTRY (244-498).** 1 Cr. Five day visit in New York City or alternate city. Will involve study tours, discussions and lectures by leading people in industry, business and communications related to these fields.

**245-501 FOOD SERVICE ADMINISTRATION (245-328).** 3 Cr. Organization and Administration of food service systems, personnel selection and training, cost control, and problems of management. Prerequisite: 229-318.

**245-503 ADVANCED FOOD PRODUCTION MANAGEMENT (245-475).** 3 Cr. Advanced food production planning and controls with management experience in campus food services. Prerequisite: 245-211.

**245-513 QUANTITY FOOD PRODUCTION AND SERVICE (245-452).** 3 Cr. Application of the principles of food preparation to large quantity production, menu and formula standardization; food production costs; and menu planning for institutions. Prerequisite: 245-501.

**245-521 FOOD SERVICE EQUIPMENT (245-318).** 2 Cr. A comprehensive study of the factors affecting design, selection, layout, and uses of food service equipment and facilities. A quantitative approach in optimum utilization of physical and human resources. Students plan actual layouts of different types of food facilities. Prerequisite: 130-110.

**245-531 ECOLOGY OF HABITAT.** 2 Cr. A broad philosophical as well as physical perspective of human housing and which includes international aspects. A deep insight into family housing needs and the achievement of learning regarding these needs through laboratory experience. Value is placed upon the role of the home economist in the solution of world housing problems. Prerequisite: 6 credits of housing, equipment or equivalent.

**245-583 FOOD SERVICE SEMINAR.** 2 Cr. Discussion and interpretation of recent developments in institution management. Choice of problems based on needs and interests of students.

**245-650 FAMILY HOUSING (244-444).** 3 Cr. Appreciation and understanding of differences in socio-economic factors of the environment which influence effective utilization of family housing resources. Emphasis will be on adjustment and flexibility of safety, comfort, convenience, physical and financial maintenance based on the family cycle.

**245-651 HOUSE EVALUATION SEMINAR (244-445).** 2 Cr. Appreciation and understanding of the socio-economic factors and environmental conditions which influence effective utilization of family resources. Emphasis will be on costs, adaptability, safety, comfort, convenience, and maintenance based on family needs. Projects will be chosen and studies by the individual or group.

**245-658 EXPERIMENTAL LAUNDRY PROCEDURES (244-440).** 2 Cr. To apply current knowledge necessary for effective laundering of household fabrics. Special emphasis on use of equipment in the laundry process, laundry aids, and water composition. Experimental laboratory experiences.

**245-661 CONSUMER PROBLEMS (244-417).** 3 Cr. Factors influencing consumer choices; evaluation of various consumer aids. Consideration of consumer responsibilities to meet current needs. Activities of

consumer groups. Prerequisite: 245-360 or 245-275.

**245-676 FAMILY FINANCE (244-428).** 2 Cr. A study of the financial decisions and judgements which the average individual and family must make during a lifetime. Emphasis is on income and occupation, family expenditures, credit, savings, taxes, and estate plans. Prerequisite: 320-201.

**245-681 SPECIAL PROBLEMS IN HABITATIONAL RESOURCES (244-481).** 2 Cr. Special seminars on current problems that exist in the area of Habitational Resources. Topics of the seminar can be chosen by the instructor, individual or the group.

**245-686 HOME MANAGEMENT SEMINAR (244-408).** 1 Cr. To prepare students for management in selected areas of consumer science, family economics, family finance, home management, household equipment, and housing. Opportunity to combine study of special topics and laboratory experiences in home management of family resources in seminars.

**245-x98 FIELD EXPERIENCE — HOTEL AND RESTAURANT (245-298).** 2 Cr. Off-campus work and study in an approved position to better understand the challenges and potentials of various careers in the hospitality area. Prerequisite: 245-140.



## SCHOOL OF LIBERAL STUDIES

### DWIGHT L. AGNEW, PH.D., DEAN

Departments: Applied Mathematics  
Art  
Art Education  
Business Administration  
Marketing and Distributive Education

## TWO YEAR PROGRAM

Students intending to graduate from another school may, with careful planning, complete one to two years of general education courses at Stout State University. Students who have selected a college from which they expect to graduate should, if possible, obtain and study catalogs from the institution before registering in the Liberal Studies program at Stout. Correspondence with officials of the selected college will also help to determine the most relevant courses and assure acceptance of the credits.

Certain courses are basic to almost every college curriculum:

Two semesters of English Composition

Mathematics

One year of a laboratory science (biology, chemistry, or physics)

Two semesters of history (either United States History or History of Western Civilization)

Speech

Foreign Language

Physical Education

Other subject frequently required for college graduation or frequently recommended as electives include: literature, sociology, economics, American government, additional laboratory science, additional mathematics, psychology, philosophy, additional speech, theatre, art, and music.

Certain professional schools have specific requirements, but usually a year or more of pre-professional work can be transferred to other colleges or universities in the professions of:

Agriculture

Engineering

Pharmacy

Architecture

Journalism

Physical Therapy

Commerce

Law

Medical Technology

Dentistry

Medicine

Social Work

Education

Nursing

Veterinary Medicine

In addition to the Liberal Studies courses there are many technical and professional courses in the other schools of the University which would apply in specific professional curricula.

Specifically, Stout has a cooperative arrangement with Madison General Hospital School of Nursing for entrance into a three-year program. Details may be obtained from the Office of New Student Advisement.

Pre-professional courses should be carefully selected by studying the catalogs and corresponding with officials of the professional schools.

## ANTHROPOLOGY

**303-220 INTRODUCTION TO CULTURAL ANTHROPOLOGY** (303-420). 3 Cr. Introduction to

concepts and methods, variability of culture, outline of cultural elements, processes of cultural change.

## ART

**304-100 DRAWING** (304-200). 3 Cr. Concentration on the development of visual sensitivity through drawing with various media.

**304-101 FUNDAMENTALS OF DESIGN** (304-106). 3 Cr. Elementary design in two and three dimensions using various media with the intention of developing visual sensitivity.

**304-200 TECHNIQUES IN WEAVING** (304-244). 3 Cr. Warping a loom; elementary and complex weaving. Materials purchased by the student. Prerequisite: 304-201.

**304-201 TECHNIQUES IN RUG DESIGN** (304-243). 2 Cr. Rug design and construction. Selection of materials and equipment, dyeing, color harmonies, and designing of patterns for rug hooking. Students may select type of rug on which they wish to work.

**304-202 INTRODUCTION TO ART** (304-206). 2 Cr. Principles of visual organization, the expressive possibilities offered by materials and the level of meaning and appreciation possible in the visual arts.

**304-500 DRAWING** (304-401). 3 Cr. Continuation of 304-100 with emphasis placed on the exploitation of media for creative and expressive ends. Prerequisite: 304-100.

**304-501 LIFE DRAWING** (304-420). 3 Cr. The human figure in action and at rest. Problems in figure composition. Prerequisite: 304-100, 304-500.

**304-502 LIFE DRAWING** (304-421). 3 Cr. Advanced problems in figure composition and in graphic interpretation of the figure. Prerequisite: 304-501.

**304-503 DESIGN** (304-332). 3 Cr. Development of ideas presented in 304-101 in depth and complexity. Prerequisite: 304-101, 304-500.

**304-504 INTERIOR DESIGN** (304-334). 3 Cr. Problems involving the design, selection, and arrangement of furnishings for living and working quarters. Prerequisite: 304-101.

**304-505 PROBLEMS IN INTERIOR DESIGN** (304-423). 2 Cr. Advanced work in the design, selection and arrangement of furnishings for living and working quarters. Prerequisite: 304-504.

**304-506 COSTUME DESIGN** (304-436). 2 Cr. Development of original designs for clothing. Prerequisite: 214-266, 304-101, 304-100, 304-500.

**304-507 CRAFTS** (304-400). 3 Cr. Emphasis on original designs in metal, leather, enamel, and weaving. Prerequisite: 304-101.

**304-508 ADVANCED CRAFTS (304-404).** 3 Cr. This will be planned to suit the needs of the individuals in the group and may include work in one or more of the following crafts: pottery, weaving and silk screen stencil. Prerequisite: 304-507.

**304-509 PAINTING (304-300).** 3 Cr. Introduction to the character and use of various painting media. Work from still life and life with reference to problems of two dimensional color composition. Prerequisite: 304-500.

**304-510 PAINTING (304-402).** 3 Cr. Advanced work in oil painting, with reference to the exploitation on the medium for creative and expressive ends. Prerequisite: 304-509.

**304-511 SCULPTURE (304-320).** 3 Cr. Introduction to sculptural concepts. Prerequisite: 304-500 or equivalent.

**304-512 SCULPTURE (304-403).** 3 Cr. Advanced problems in sculpture with reference to the exploitation of media for creative and expressive ends. Prerequisite: 304-511.

**304-513 CERAMICS (304-410).** 3 Cr. Basic design and techniques of ceramic production for the artist-potter; forming, firing, and decorating.

**304-514 CERAMICS (304-411).** 3 Cr. Techniques in the use of clay, glazes, and kiln for the design and production of high fired ceramics. Prerequisite: 304-513.

**304-515 ART METAL (304-440).** 3 Cr. The design and construction of objects in precious metals. Prerequisite: 304-101 or equivalent.

**304-516 ART METAL (304-441).** 3 Cr. Advanced problems in the design and construction of objects in precious metals. Prerequisite: 304-515.

**304-517 PRINTMAKING (304-451).** 3 Cr. (Course description may be submitted). Prerequisites: 304-500, 304-510.

**304-518 PRINTMAKING (304-452).** 3 Cr. (Course description may be submitted). Prerequisite: 304-517.

**304-519 WEAVING (304-424).** 2 Cr. Warping a loom; elementary and complex weaving. Prerequisite: 304-101.

**304-520 WEAVING (304-425).** 2 Cr. Advanced problems in weaving. Prerequisite: 304-519.

**304-521 HOUSING (304-448).** 3 Cr. Problems in dwelling construction with consideration given to location of the lot, family activities, materials, and cost. Prerequisite: 304-101 or equivalent.

**304-522 MODERN ART (304-390).** 3 Cr. The main currents and developments in art from Monet and Cezanne to 1950.

**304-523 SURVEY OF ART: ANCIENT THROUGH MEDIEVAL (304-430).** 3 Cr. The painting, sculpture, architecture and minor arts in the ancient western world.

**304-524 SURVEY OF ART: THE RENAISSANCE THROUGH THE 20TH CENTURY (304-431).** 3 Cr. Sculpture, painting, architecture and minor arts of the western world from 14th century to present.



**304-525 EGYPTIAN AND MESO-POTAMIAN ART (304-480).** 3 Cr. The evolution of the arts of ancient Egypt and the Near East.

**304-526 GREEK AND ROMAN ART (304-481).** 3 Cr. The arts of ancient Greece and Rome.

**304-527 MEDIEVAL ART (304-482).** 3 Cr. The arts of Europe and Byzantium from the later Roman Empire to the end of the Middle Ages.

**304-528 ITALIAN RENAISSANCE ART (304-483).** 3 Cr. The problems and the evolution of Italian Renaissance sculpture and painting from the 14th to the 18th century.

**304-529 NORTHERN RENAISSANCE ART (304-484).** 3 Cr. The evolution of Renaissance art in northern Europe from the 15th to the 18th century.

**304-530 NORTHERN BAROQUE ART (304-485).** 3 Cr. Architecture, painting, sculpture and other art forms of 17th century northern Europe.

**304-531 SOUTHERN BAROQUE ART (304-486).** 3 Cr. The development of art in northern Europe from the Italian Renaissance to the 18th century.

**304-532 ECONOMICS OF HOUSE FURNISHING (304-432).** 3 Cr. Study of consumer house furnishing problems based on utilitarian, economic, aesthetic and social values of household commodities. Quantity and quality budgets at different price levels. Visits to house furnishing markets.

**304-533 PERIOD FURNISHINGS (304-434).** 3 Cr. A survey of furniture and furnishings in the Western World.

**304-600 EIGHTEENTH CENTURY EUROPEAN ART (304-487).** 3 Cr. The evolution of European art forms during the 18th century.

**304-601 PRE-COLUMBIAN ART (304-488).** 3 Cr. The arts of the Americas, including Incan, Mayan, and Aztec from 1200 B.C. to 1550 A.D.

**304-602 AMERICAN ART (304-489).** 3 Cr. The development of the visual arts in the United States from the Colonial period to 1950.

**304-603 NINETEENTH CENTURY ART IN EUROPE (304-490).** 3 Cr. History of European art from about 1800 to 1900.

**304-604 ART SINCE 1950 (304-491).** 3 Cr. Developments in painting and sculpture in Europe and America since 1950.

**304-605 ORIENTAL ART (304-492).** 3 Cr. Art from prehistoric times to the 19th century in India and the Asian sub-continent.

**304-606 ORIENTAL ART (304-493).** 3 Cr. Art from prehistoric times to the 19th century in China, Japan and their spheres of influence.

**304-607 ESTHETICS (304-498).** 3 Cr. A seminar based on a study of statements by philosophers on art. Prerequisite: 304-322.

## BIOLOGY

**308-122 BIOLOGY.** 3 Cr. Principles such as cellular metabolism, heredity, and relationships between living organisms and their environment are emphasized in this course.

**308-132 PHYSIOLOGY AND ANATOMY** (308-214). 4 Cr. The basic concepts of physiological processes and anatomy of all organ systems of the human based on dissection of the cat; embryological development.

**308-142 BOTANY** (308-314). 4 Cr. An introduction to the structure and physiology of plants; survey of the plant kingdom; structure and life history of representative forms of plant life.

**308-150 MAN AND THE ENVIRONMENT.** 2 Cr. Man's relationship to the world environment. Contemporary problems such as air and water pollution; biocides; solid waste disposal; depletion of natural resources; the menace of overpopulation; and the impending food crisis.

**308-152 ZOOLOGY** (308-316). 4 Cr. An introduction to the fundamental concepts of animal life; survey of the animal kingdom; structure and physiology of representative animals; evolutionary relationships.

**308-206 GENERAL MICROBIOLOGY** (308-306). 4 Cr. Structure and physiology of yeasts, molds, and bacteria. Growth requirements; methods used in culture and identification; introductory studies in bacterial analysis of water and milk; other problems in sanitation and food bacteriology.

**308-250 ENTOMOLOGY.** 3 Cr. Identification, classification and control of insects found in the home, garden and nature. Prerequisite: 308-122, 308-152.

**308-332 GENETICS** (308-432). 2 Cr. Fundamental principles of genetics, their functions and applications to plants, animals and man.

**308-342 COMMUNITY HYGIENE** (308-442). 2 Cr. Disease prevention through education, sanitation, isolation, and immunization. Public health programs and operation of federal and state laws.

**308-350 ECOLOGY** (308-450). 3 Cr. Interrelationships of organisms with their physical and biotic environments. Prerequisites: 308-142, 308-152 or parallel.

**308-362 ADVANCED PHYSIOLOGY.** 3 Cr. Physiological processes: digestion, respiration, metabolism, excretion, circulation, and muscle. Histological studies of blood; experiments of frog and turtle hearts; nerve and muscle preparation. Respiratory, nerve, circulatory, and muscle experiments on the human body. Prerequisites: 311-115, 308-132.

**308-506 FOOD MICROBIOLOGY** (308-406). 3 Cr. Fundamental methods of food preservation, their effectiveness, and the related spoilage of food products by microorganisms. Quality control techniques employed in determining the presence of specific groups of economically important microorganisms. Prerequisite: 308-206.

**308-520 COMPARATIVE ETHOLOGY I.** 2 Cr. A comparative study of the biological basis of human behavior. Primary emphasis will be given to the applicability of the development of animal behavior

patterns to human beings. The phylogenetic adaptations of human behavior are to be examined to consider their theoretical importance for the study of the behavioral sciences.

## BUSINESS ADMINISTRATION

**309-100 ELEMENTARY ACCOUNTING.** 0 Cr. Initial exposure to the many business terms, orientation of business transactions, and the fundamental structure of accounting.

**309-206 PRINCIPLES OF ACCOUNTING (309-206).** 3 Cr. The theory of debit and credit; the underlying principles of the various accounting records; modern business papers; working sheets; the balance sheet and the income statement; the sole proprietorship, the partnership.

**309-207 PRINCIPLES OF ACCOUNTING (309-207).** 3 Cr. A development of the basic accounting theory which is introduced in 309-206 including partnership and corporate forms of organization. The elements of branch and manufacturing accounting are included, as well as the introduction to cost accounting, budgeting and the analysis and interpretation of financial statements. Prerequisite: 309-206.

**309-210 PRACTICAL MATHEMATICS OF FINANCE (309-210).** 3 Cr. Application of fundamentals of mathematics to business transactions: interest, annuities, bonds, depreciation, present value analysis, life insurance. Prerequisite: 355-118 or equivalent.

**309-230 SMALL BUSINESS MANAGEMENT (309-230).** 3 Cr. Introduction to the various aspects of

business management, especially at the level of small business. Prerequisite: 309-206, 320-210 or 320-215.

**309-245 BUSINESS DATA PROCESSING.** 3 Cr. Development of a basic understanding of data processing principles; introduction to business data processing equipment and these principles on the business environment.

**309-246 COMPUTER PROGRAMMING — COBOL.** 3 Cr. Introduction to computer systems and their utilization. The development of programming practices and techniques, flowcharting, and application through a business oriented translating language. Prerequisite: 309-245.

**309-304 PRINCIPLES OF BUSINESS MANAGEMENT.** 3 Cr. Studying in depth the basic managerial functions of planning, organizing, staffing, directing, and controlling, including the principles of management which have universal application to all types of organizations; nature of authority and responsibility, departmentation, line and staff relations; the enterprise manager in his social setting, comparative management, and management and the future. Prerequisites: 309-207 and 320-215.

**309-310 COST ACCOUNTING (309-410).** 3 Cr. Cost accounting principles and procedures relating



to job order, process, and standard costing; elements of cost, cost control, and cost reports. Prerequisite: 309-207.

**309-318 BUSINESS LAW.** 3 Cr. Introduction to law, contracts, agency nature and types of negotiable instruments.

**309-319 BUSINESS LAW II.** 3 Cr. A continuation of Business Law I; includes security devices, insurance agency, employment, partnerships, corporations, real property, estates and bankruptcy, government and business; a study of the effect of the Uniform Commercial Code on the above-mentioned areas of business law. Prerequisite: 309-318.

**309-320 INCOME TAX ACCOUNTING (309-420).** 3 Cr. Principles involved in determining taxable net income, and computation of federal and state income taxes for individuals, partnerships, and corporations. Prerequisite: 309-207.

**309-323 RETAIL MERCHANDISING AND MANAGEMENT (309-423).** 3 Cr. Retail sales promotional techniques and practices with particular emphasis on display, layout, retail and cooperative advertising, mathematics of merchandising. Retail management problems such as store location, types of goods stocked, inventory financing, credit operation, etc. Prerequisite: 309-330.

**309-325 BUSINESS STATISTICS.** 3 Cr. Method of collection, analysis, and presentation of economics, social, and business data. Ratios, frequency distributions, averages, variability, linear regression, correlation, time series analysis, and principles of index numbers. Prerequisite: 355-118 or equivalent.

**309-330 PRINCIPLES OF MARKETING.** 3 Cr. Retail, wholesaling, advertising, channels of distribution, cooperative marketing, pricing, marketing research, and marketing legislation from the standpoint of consumers, middlemen, and manufacturers. Prerequisites: 320-210, 320-215.

**309-334 SALESMANSHIP AND SALES MANAGEMENT (309-404).** 3 Cr. Basic concepts of selling, including locating prospects, securing and conducting sales presentations, analyzing and handling different types of customers, closing sale, maintaining goodwill. Study of sales organizations with emphasis on recruitment, selection, training compensation, and cost control methods. Prerequisite: 309-330.

**309-335 MANAGERIAL ACCOUNTING (309-435).** 3 Cr. Provides students majoring in general business with an understanding of the significance of accounting data without involvement in mechanical techniques. Interpretation of financial statements, internal control, budgeting, costing of products manufactured and sold, analysis of cost-volume-profit decisions. Prerequisites: 309-207, 320-215.

**309-340 BUSINESS FINANCE.** 3 Cr. Principles governing the planning, raising, and controlling of short and long term funds for a business enterprise, large or small, corporate or noncorporate. Financial aspects of promotion and organization, sources of financing, and the administration of income; failure and reorganization. Prerequisite: 320-215, 309-207.

**309-355 PRINCIPLES OF INSURANCE (309-455).** 3 Cr. Basic principles of risk and insurance and

their applications to business management and personal affairs. Analysis of concepts and methods of handling risks; insurance carriers and contracts and underwriting; loss prevention and settlement; government insurance programs. Economic functions of insurance. Prerequisite: 320-215.

**309-370 PRINCIPLES OF ADVERTISING (309-470).** 3 Cr. A survey course presenting the psychological, social, and economic aspects of advertising. Advertising is presented in its relationship to the other factors of distribution with emphasis on the place of advertising in modern business. Prerequisite: 309-330.

**309-601 REGULATION OF INDUSTRY (309-450).** 3 Cr. Economic concentration lessening competition or creating a (monopoly) and maintaining competition; changing relationships between government and industry, emphasizing regulatory legislation, administrative agencies, national policies, and social control. Prerequisite: 320-215.

**309-679 MARKETING RESEARCH (309-479).** 3 Cr. Experimental and

survey techniques used to secure information necessary for successful marketing such as who buys what, when, where, how and why. Primary and secondary sources of information examined. Data collection, compilation, and analysis methods reviewed plus effective communication of conclusions and recommendations to management. Prerequisite: 309-325, 309-330.

**309-690 ADMINISTRATIVE AND BUSINESS POLICIES (309-490).** 3 Cr. Integrates the student's previous studies in business, and further develops his ability to deal more effectively with business problems by learning and applying the scientific approach to decision making. Includes business cases on policy formulation and administration, involving the functions of manufacturing, marketing, finance, accounting, personnel, and public relations.

**309-x98 FIELD EXPERIENCE — BUSINESS ADMINISTRATION (309-298).** 2 Cr. Off-campus work and study in an approved position to better understand the challenges of being an effective manager. Prerequisite: 309-304.

## CHEMISTRY

**311-090 FUNDAMENTALS OF CHEMISTRY (311-100).** 0 Cr. For students having an inadequate background preparation in mathematics or basic chemistry. The fundamental principles of atomic and molecular structure, the behaviors of substances and the quantitative relationships arising from these principles and behaviors are stressed.

**311-111 PROJECT APPROACH TO CHEMISTRY.** 5 Cr. A special experimental course which carries

the same graduation credits as does 311-115 and which can be used as meeting the requirements of 311-115 but which carries a special grade rider such that the course cannot be used for any prerequisite purposes. Students who expect to take courses which require chemistry as a prerequisite should not register for 311-111. The course content and laboratory work is variable, depending upon the interests of particular students, but it does consist of work on projects of interest to the student and which involve chemistry at the



level of sophistication of first year college chemistry. After a short introduction to the use of the chemical literature, the student is expected working alone or in a group of like-minded students, to read the literature which pertains to the chosen project and then to engage in the experimental and theoretical work of the project, using the instructor as a resource source, until at culmination the results of this effort can be presented to the class assembled, in the form of a formal report.

**311-115 INTRODUCTORY COLLEGE CHEMISTRY.** 5 Cr. The basic principles of inorganic chemistry; some of the important elements and compounds and their major applications to modern life.

**311-135 COLLEGE CHEMISTRY I.** 5 Cr. Principles of inorganic chemistry and the properties of important elements and compounds. Approach is more rigorous and coverage more extensive than in 311-115.

**311-136 COLLEGE CHEMISTRY II.** 4 Cr. Reactions and properties of common elements and inorganic compounds; oxidation-reduction and solution equilibria; electrochemistry. Laboratory procedures for qualitative analyses for common ions. Prerequisite: 311-115 or 311-135.

**311-201 ORGANIC CHEMISTRY LECTURE** (311-208). 3 Cr. **311-203 ORGANIC CHEMISTRY LABORATORY** (311-209). 1 Cr. An introduction to the chemistry of carbon compounds with emphasis on the characteristic reactions of the several functional groups. Aliphatic and aromatic compounds are studied concurrently. 311-203 nor-

mally taken concurrently with 311-201. Prerequisites: 311-115 or 311-135.

**311-204 ORGANIC CHEMISTRY II LECTURE** (311-210). 3 Cr. **311-206 ORGANIC CHEMISTRY LABORATORY** (311-206). 1 Cr. Basic organic chemistry with emphasis on organic reaction mechanisms. 311-206 normally taken concurrently with 311-204. Prerequisites: 311-115 or 311-135, and 311-201.

**311-501 PHYSICAL CHEMISTRY** (311-417). 3 Cr. Fundamental physical chemistry; the behavior of gases, the liquid state, the properties of solutions, the principles of thermodynamics, thermochemistry. 311-503 is normally taken concurrently. Prerequisites: 311-115 or 311-135, 355-156, (311-531 recommended).

**311-503 PHYSICAL CHEMISTRY LABORATORY** (311-428). 1 Cr. Laboratory which may accompany physical chemistry, normally taken concurrently. Experimental techniques and apparatus. Treatment of experimental data. Prerequisites: 311-115 or 311-135, 355-156, (311-531 recommended).

**311-511 BIOCHEMISTRY** (311-322). 3 Cr. Fundamental chemistry and metabolism of carbohydrates, lipids and proteins. Second and third order structure of proteins. Chemistry of nucleic acids. Nature and dynamics of enzymes and enzyme action. Biological oxidations. Laboratory work involving polarimetry, colorimetry, chromatography and quantitative analytical procedures such as the Kjeldahl determination of protein nitrogen. Prerequisites: 311-201, 308-132.

**311-515 FOOD CHEMISTRY** (311-411). 3 Cr. Organic biochemistry



of foods with emphasis on the enzymatic and non-enzymatic changes associated with food preparation and storage, such as the Maillard-Browning reaction, denaturation of protein, changes in color, flavor, odor, texture and nutritive value. Techniques for the isolation and identification of the biochemical constituents of foods. Prerequisite: 311-201 or 311-203 lecture, (311-531 and 311-511 recommended).

**311-521 TEXTILE CHEMISTRY** (311-418). 3 Cr. Chemical and physical properties of monomers and high polymers of the following natural and synthetic fibers: cotton, cellulose derivatives, silk, wool, linen nylon, polyesters, acrylics, olefins and polyurethanes. Laboratory analysis of textile fibers and textile fiber mixtures and dyestuffs; physical properties of textiles, synthesis of textile polymers, crease resistance. Textile finishing. Prerequisite: 311-201.

**311-525 CHEMISTRY OF POLYMERS** (311-421). 3 Cr. An elementary study of the chemical and physical nature of polymers and of the methods of preparation and the uses of the principal types of polymeric substances. Prerequisite: 311-201.

**311-531 QUANTITATIVE ANALYSIS** (311-438). 3 Cr. Introduction to the principles of quantitative chemical analysis and training in precision laboratory techniques. Prerequisite: 311-115 or 311-135.

**311-535 INSTRUMENTAL METHODS OF ANALYSIS** (311-450). 3 Cr. Application of instrumental methods to chemical analysis, including electrochemical methods; ultraviolet, visible, and infrared spectrophotometry, radiochemical methods, and applications of com-

mon instrumental methods. Techniques for obtaining reliable results by instrumental means. Prerequisite: 311-115 or 311-135, (311-531 recommended).

**311-541 CHEMISTRY OF MATERIALS** (311-445). 3 Cr. The practical applications of the principles and facts of chemistry to technological problems. Topics include: the structure and properties of common materials; fuels—solid, liquid, gaseous, fossil, nuclear—and air pollution; water—domestic, industrial, sewage—and water pollution; electrical properties—cells, batteries, fuel cells, electrolysis—and corrosion of metals; protective coatings—paints, varnishes, enamels, lacquers, plating, anodizing, cladding, etc. Prerequisite: 311-115 or 311-135.

**311-551 CHEMISTRY OF INDUSTRY I** (311-555). 4 Cr. A study of the chemistry of the materials used in industry and of industrial production processes. Prerequisite: 311-115 or 311-135 or equivalent.

**311-552 CHEMISTRY OF INDUSTRY II** (311-556). 3 Cr. A study of the chemistry of the materials used in industry and of industrial production processes, including instrumentation and testing procedures, research techniques, scientific information and communication and industrial health and safety. Prerequisite: 311-551 or equivalent.

**311-561 INDUSTRIAL ORGANIC CHEMISTRY** (311-565). 3 Cr. An introduction to the common industrial organic chemical processes used for the preparation of raw materials and their processing into usable forms suitable for product manufacturing. Prerequisite: 311-201, 311-203, one semester or its equivalent.

## ECONOMICS

**320-201 GENERAL ECONOMICS** (320-201). 3 Cr. Introduction to the basic elements of economics. Analysis of economic institutions, issues, and policy; theories of price, national income, and employment. Not open to students taking 320-210 and 215.

**320-207 MONEY AND BANKING.** 3 Cr. Nature of money and bank credit; modern monetary theories; monetary policy. Emphasis on economics aspects rather than institutional description. Prerequisite: 320-201, or 320-210.

**320-210 PRINCIPLES OF ECONOMICS I.** 3 Cr. Basic economic concepts and economic institutions, national income and employment analysis, business fluctuations, money and banking; monetary fiscal policies.

**320-215 PRINCIPLES OF ECONOMICS II** (320-211). 3 Cr. Price theory, income distribution, factor pricing, market mechanisms, functions of economic system, labor and collective bargaining and international economics. Prerequisite: 320-210.

**320-370 COMPARATIVE ECONOMIC SYSTEMS.** 3 Cr. Functions of all economic systems. Theories of capitalist, communist, and socialist systems. Comparison of the systems of different countries. Prerequisite: 320-215.

**320-410 MICROECONOMIC ANALYSIS** (320-459). 3 Cr. Microeconomics: value and distribution theory; analysis of demand-firm, industry and utility; pricing of factors of production. Prerequisite: 320-215.

**320-415 MACROECONOMIC ANALYSIS** (320-460). 3 Cr. Macroeconomics: determination of income, employment, growth rates, and price levels. Monetary and fiscal policies necessary for full employment. Prerequisite: 320-215.

**320-420 LABOR ECONOMICS** (320-414). 3 Cr. History of organized labor chiefly in Western industrial societies. Collective bargaining as viewed by labor, management, government, and the public. Basic labor economics; the institutions involved in modern labor relations. Prerequisite: 320-201 or 320-210.

**320-425 ECONOMIC DEVELOPMENT** (320-416). 3 Cr. Social and economic factors underlying economic development. Capital formation, measurement of growth, population problems. Considers both theory and practical problems. Prerequisite: 320-215.

**320-430 HISTORY OF ECONOMIC THOUGHT** (320-453). 3 Cr. Principle economic writings of classical, neoclassical, and contemporary economists. Prerequisite: 320-215.

**320-445 PUBLIC FINANCE.** 3 Cr. Survey of public finance at all governmental levels; taxation, expenditures, debt management, and fiscal policy. Prerequisite: 320-215.

**320-470 ECONOMIC MODEL BUILDING AND FORECASTING.** 3 Cr. Basic course in the application of quantitative models and methods to forecasting. Prerequisites: 320-215 and 309-325, or equivalent.



**320-480 PRINCIPLES OF INTERNATIONAL TRADE.** 3 Cr. Theory and practice. Capital movements; foreign exchange rates and controls; balance of payments; tariffs. Prerequisite: 320-215.

**320-550 MANAGERIAL ECONOMICS (320-450).** 3 Cr. Decision-making in the firm; demand and cost analysis; competitive and non-competitive price systems, marketing problems, capital budgeting, and criteria for investment decisions. Prerequisite: 320-215.

**320-610 CONTEMPORARY AMERICAN ECONOMIC PROBLEMS (320-510).** 3 Cr. Survey of domestic economic problems at advanced level with special emphasis on applications and effects on industry.

**320-615 CONTEMPORARY INTERNATIONAL ECONOMIC PROBLEMS (320-515).** 3 Cr. Survey of international economic problems at advanced level with special emphasis on application and effects on domestic industry.

## ENGLISH AND JOURNALISM

**326-090 ENGLISH WRITING LABORATORY (326-100).** 0 Cr. Open to selected students for individual needs. New structural and linguistic approaches to basic writing.

**326-101 FRESHMAN ENGLISH: COMPOSITION.** 3 Cr. The principles and practices of writing. Includes a documented paper.

**326-102 FRESHMAN ENGLISH: READING AND RELATED WRITING.** 3 Cr. Readings focused on a theme reflected in literature. Specific topics and approaches are developed by each instructor. Opportunity for the student to do responsible, independent study. Requires intensive practice in composition. Includes a documented paper. Prerequisite: 326-101.

**326-111 FRESHMAN ENGLISH: HONORS.** 3 Cr. Readings in world literature and related writing designed for training in techniques of composition. Includes a documented paper. Prerequisite: Departmental selection on basis of ability.

**326-112 FRESHMAN ENGLISH: HONORS.** 3 Cr. Continuation of 326-111 (Honors). Prerequisite: Departmental selection on basis of ability, 326-101 or 326-111.

**326-203 POETRY (326-304).** 3 Cr. Basic approach to narrative, dramatic, lyric poetry with emphasis on contemporary writers. Prerequisite: 326-102 or 326-112.

**326-204 THE SHORT STORY.** 3 Cr. The style, structure, history and development of the short story as a literary form. Prerequisite: 326-102 or 326-112.

**326-250 CLASSICAL AND BIBLICAL LITERATURE IN TRANSLATION.** 3 Cr. Selections from Greek, Hebrew, and Latin literature. Prerequisite: 326-102 or 326-112.

**326-300 CHILDREN'S LITERATURE.** 3 Cr. Critical and evaluative survey of literature for young children with practical application to children and writing for them. Prerequisite: 326-102 and 326-112.



**326-306 REPORTING AND NEWS WRITING.** 2 Cr. Theory and practice of news gathering and reporting, journalistic style, copy and proof reading. Discriminative newspaper reading; the history of journalism, libel. Prerequisite: 326-102 or 326-112.

**326-339 INTRODUCTION TO LINGUISTICS.** 3 Cr. An introduction to scholarly writing on the nature of language and the fundamental concepts and methodology of linguistic science, stressing those aspects which are accepted by most linguists. Prerequisite: 326-102 or 326-112.

**326-340 THE STRUCTURE OF ENGLISH.** 3 Cr. New analytic and descriptive methods applied to modern English. Prerequisite: 326-102 or 326-112.

**326-344 CONTEMPORARY RHETORIC.** 3 Cr. The theory and contemporary practice of the art of written persuasion. Includes a documented investigative paper. Prerequisite: 326-102 or 326-112.

**326-345 CREATIVE WRITING.** 3 Cr. All aspects of imaginative writing. Prerequisite: 326-102 or 326-112.

**326-346 EXPOSITORY WRITING.** 3 Cr. Factual writing including preparation of documented investigative paper. Prerequisite: 326-102 or 326-112.

**326-347 CRITICAL WRITING.** 3 Cr. The art of evaluation and judgment. The writing of critical reviews and articles. Includes a documented critical paper. Prerequisite: 326-102 or 326-112.

**326-348 AMERICAN LITERATURE.** 3 Cr. American prose and poetry from its beginnings to World War I. Prerequisite: 326-102 or 326-112.

**326-350 MODERN BRITISH WRITERS.** 3 Cr. Selected poetry, prose, and fiction produced since World War I. Prerequisite: 326-102 or 326-112.

**326-351 EUROPEAN LITERATURE IN TRANSLATION.** 3 Cr. Selected poetry, prose, and drama from Dante to present day. Prerequisite: 326-102 or 326-112.

**326-360 MODERN AMERICAN WRITERS.** 3 Cr. Selected poetry, prose, and drama produced since World War I. Prerequisite: 326-102 or 326-112.

**326-364 THE COMIC SPIRIT.** 3 Cr. Studies in the comic impulse and the various forms it has taken at different times. Prerequisite: 326-102 and 326-112.

**326-365 THE TRAGIC VISION.** 3 Cr. Studies in the tragic impulse and the various forms it has taken at different times. Prerequisite: 326-102 or 326-112.

**326-370 REGIONALISM AND CULTURAL CONFLICT IN AMERICAN WRITERS.** 3 Cr. Two interlaced aspects of American writing: the use of geographical region or cultural setting and the inevitable cultural conflicts resulting from economic and social change. Prerequisite: 326-102 or 326-112.

**326-371 BLACK LITERATURE.** 3 Cr. A panorama of Black creative effort through the written work with a fuller study of selected Black writers. Prerequisite: 326-102 or 326-112.

**326-374 REALISM.** 3 Cr. A study in the nature of literary realism. Prerequisite: 326-102 or 326-112.

**326-400 ENGLISH LITERATURE.** 3 Cr. Selected English prose and poetry from Beowulf to 1798. Prerequisite: 326-102 or 326-112.

**326-401 ENGLISH LITERATURE.** 3 Cr. Selected prose and poetry from 1798 to modern times. Prerequisite: 326-102 or 326-112.

**326-402 CONCEPTS OF LITERARY CRITICISM.** 3 Cr. A systematic approach to literary theory, criticism, and history. The science and art of form and structure as presented by great critics with emphasis on New Criticism.

**326-403 HISTORY OF THE ENGLISH NOVEL.** 3 Cr. Origin and development of the novel. Selected readings. Prerequisite: 326-102 or 326-112.

**326-404 CONTEMPORARY LITERATURE IN TRANSLATION.** 3 Cr. Selected readings in Contemporary Literature in Translation. Prerequisite: 326-102 or 326-112.

**326-406 SHAKESPEARE.** 3 Cr. Representative plays of Shakespeare. Study of twenty plays and selected criticism. Prerequisite: 326-102 or 326-112.

**326-410 WRITING AND SELLING FEATURE ARTICLES.** 2 Cr. Prac-

tice in techniques of writing and selling feature articles for appropriate markets. Students are required to submit articles for potential publication. Prerequisite: 326-102 or 326-112.

**326-425 COPY EDITING AND PREPARATION.** 2 Cr. Development of skill in expanding and reducing written materials. Experience in copy reading, proof reading, headlines. Prerequisite: 130-140.

**326-450 A DEPTH STUDY IN LITERATURE.** 3 Cr. A penetrating study of selected writer with reference to sources, forms, and influences. Selected writer varies from semester to semester.

**326-515 TECHNICAL WRITING FOR HOME ECONOMICS.** 3 Cr. An overview of specialized writing done by home economists in business. Experience in preparing reports, letters, and other appropriate materials. Prerequisite: 326-344, or 326-346, or 326-347.

**326-516 TECHNICAL WRITING FOR INDUSTRY (326-416).** 3 Cr. A survey of the type of writing current in industry. Writing of business reports and other materials. Prerequisite: 326-344, 326-346, or 326-347.

**326-518 MASS COMMUNICATION IN AMERICAN SOCIETY (326-318).** 3 Cr. History, social implications, and future of the mass media of communications. Prerequisite: 326-102 or 326-112.

**326-546 RESEARCH REPORTING (326-446).** 2 Cr. Effective organization and presentation of individual research.

## FRENCH

**328-101 ELEMENTARY FRENCH I.** 4 Cr. Introduction to basic audio-lingual skills, to the essentials of grammar, and to reading for comprehension. Supplementary materials are drawn from the cultural heritage of France. Minimum of 1 laboratory hour will be required.

**328-102 ELEMENTARY FRENCH II.** A minimum of one laboratory hour will be required. Continuation of 328-101. Prerequisite: 328-101.

**328-201 INTERMEDIATE FRENCH I.** 4 Cr. A minimum of one laboratory hour will be required. Grammar review, vocabulary improvement, oral practice, original composition, and readings that stress French civilization and literature. Prerequisite: 328-102 or two years of high school French.

**328-202 INTERMEDIATE FRENCH II.** 4 Cr. A minimum of one laboratory hour will be required. Continuation of 328-201. Prerequisite: 328-201.

**328-301 ADVANCED FRENCH COMPOSITION AND CONVERSATION.** 2 Cr. A minimum of one laboratory hour will be required per week. The development of skills in writing and speaking correct, idiomatic French. Prerequisite: 328-202 or its equivalent.

**328-302 STUDIES IN FRENCH LITERATURE.** 2 Cr. An introduction to French literature through the study of either a genre, a particular author, or a specific period. Prerequisite: 328-202 or its equivalent.

## GEOGRAPHY — HISTORY

**336-104 WORLD GEOGRAPHY.** 3 Cr. Peoples and places of the world today. Causes and significance of a real differentiation in terrain and human life.

**338-120 UNITED STATES HISTORY (338-101).** 3 Cr. American history of 1865. Political, economic, and social forces which have shaped the nation to the close of the Civil War. Not available to students who have completed 338-220.

**338-121 UNITED STATES HISTORY (338-102).** 3 Cr. Continuation of 338-120. Not available to students who have completed 338-220. Prerequisite: 338-120.

**338-140 WESTERN CIVILIZATION (338-151).** 3 Cr. Survey of Western civilization along the Nile, the Fertile Crescent, through Greece, Rome, the Middle Ages, the Renaissance, and the Reformation.

**338-141 WESTERN CIVILIZATION (338-152).** 3 Cr. A survey of Western Civilization from the Reformation to the present.

**338-210 MODERN WORLD (338-410).** 3 Cr. Modern trends in terms of historical backgrounds, providing a frame of reference for interpreting the contemporary world. United Nations.



**338-220 HISTORY OF AMERICA** (338-407). 3 Cr. Survey of the United States. Not open to those taking the 22-credit minor, nor those who have completed 338-120 or 338-121.

**338-340 ENGLISH HISTORY** (338-212). 3 Cr. The social, political, religious, military and economic history of Great Britain from the Restoration in 1660 to modern times.

**338-360 ASIAN HISTORY** (338-422). 3 Cr. A historical survey—political, social, religious, economic. Emphasis on India, China, Japan, and the Philippines during the modern world.

**338-380 LATIN AMERICAN HISTORY** (338-423). 3 Cr. A historical survey—political, social, economic—on Middle and South America, pre-Columbian to the present.

**338-410 BIOGRAPHY OF WORLD LEADERS** (338-405). 2 Cr. Readings in the biographies and autobi-

ographies of American, European, and modern world leaders.

**338-420 RECENT HISTORY OF THE UNITED STATES** (338-409). 2 Cr. American history in the 20th century. Study of recent world development in which the United States has played a part.

**338-520 ECONOMIC HISTORY OF THE UNITED STATES** (338-401). 3 Cr. Economic evolution of the United States since colonial times. Development of economic problems and the foundations of modern industry. Prerequisite: 320-201 or 320-210.

**338-522 AFRO-AMERICAN HISTORY** (338-435). 3 Cr. A social, cultural, and political history of the Afro-American in the New World, with the main emphasis upon the United States.

**338-540 HISTORY OF MODERN RUSSIA** (338-418). 3 Cr. Survey of significant developments in Russia since 1815.

## APPLIED MATHEMATICS

**354-130 COMPUTATIONAL STATISTICS.** 2 Cr. Organization and presentation of data, computation of descriptive constants, regression and correlation theory and computation, elementary sampling theory; introduction to normal, binominal distributions, tests of hypothesis.

**354-141 DIGITAL COMPUTER PROGRAMMING.** 2 Cr. Introduction to computer systems and their utilization. Emphasis on translating language, program writing, and debugging.

**354-240 INTERMEDIATE COMPUTER PROGRAMMING.** 3 Cr. An extension of 354-141 to include subprograms, plotter output, disk I/O, and advanced FORTRAN techniques. Introduction to machine and assembly language programming. Prerequisite: 354-141.

**354-241 ASSEMBLY LANGUAGE PROGRAMMING.** 2 Cr. Assembly language including interrupt concepts, interrupt service routines, and code conversion routines. Prerequisite: 354-141.

**354-245 NUMERICAL METHODS.** 2 Cr. Computer programming and numerical methods for the solutions of equations, simultaneous equations, interpolation, numerical differentiation and integration, statistical analysis. Prerequisites: 354-141, 355-153 or 355-156.

**354-332 MATHEMATICAL STATISTICS.** 3 Cr. The mathematical treatment of statistical data, frequency distribution functions, sampling theory, hypothesis testing, estimation and statistical design. Prerequisite: 355-154 or 355-157.

**354-430 INDUSTRIAL STATISTICS I.** 2 Cr. Review of statistical methods, hypothesis testing, estimation, goodness of fit, and sampling distributions. Emphasis on design experiments; statistical problems from business and industry. Prerequisite: 354-130.

**354-431 INDUSTRIAL STATISTICS II.** 2 Cr. Continuation of application of statistics to problems from industry and business. Directed independent work on selected

problems. Introduction to sequential analysis. Prerequisite: 354-332.

**354-445 NUMERICAL ANALYSIS.** 3 Cr. Mathematical theory supporting numerical methods by computer programming for solution of equations, simultaneous equations, numerical differentiation and integration, and approximation procedures. Prerequisite: 354-245, 355-255, 355-275.

**354-490 MATHEMATICAL MODELS I.** 2 Cr. Supervised experiences in the construction of mathematical models for the solution of problems in the area of student needs and interests. Resource materials.

**354-491 MATHEMATICAL MODELS II.** 2 Cr. Continuation of Mathematical Models I. Prerequisite: 354-490.

**354-x98 FIELD EXPERIENCE — COMPUTER SCIENCE.** 2 Cr. Off-campus work and study in an approved position to better understand the challenges and potentials of various careers related to the computer.

## MATHEMATICS

**355-010 FUNDAMENTALS OF ALGEBRA (355-100).** 0 Cr. A review of the fundamental principles of elementary algebra.

**355-110 SLIDE RULE.** 1 Cr. Scientific notation, principles of the slide rule; basic operations including multiplication, division, ratio and proportion, powers, roots, logarithmic and trigonometric functions.

**355-116 ELEMENTARY FUNCTIONS OF MATHEMATICS.** 4 Cr. Review of the basic concepts of al-

gebra; the real number system, functions, exponents and radicals. Emphasis on trigonometric functions, identities, equations, reduction formulas; application problems. Not open to students who have completed 355-120 or 355-121.

**355-118 CONCEPTS OF MATHEMATICS.** 4 Cr. Elementary concepts in mathematical language and reasoning, sets, number systems and theory, algebraic equations, statistics and probability, geometry, computers. Includes historical survey. Prerequisite: 1 year high school algebra minimum.



**355-120 INTRODUCTORY COLLEGE MATHEMATICS I.** 4 Cr. Symbolic logic and the nature of proof, set theory, counting numbers, integers, rational numbers, and the real number system.

**355-121 INTRODUCTORY COLLEGE MATHEMATICS II.** 4 Cr. Open sentences, relations and functions, algebra of functions—trigonometric, exponential, and logarithmic. Prerequisite: 355-120.

**355-153 CALCULUS I.** 4 Cr. Functions, limits, continuity, bounds, sets; the derivative of functions and applications; exponential, logarithmic, trigonometric and inverse functions. Not open to students who have completed 355-156, 355-157, or 355-158. Prerequisite: 355-121 or equivalent.

**355-154 CALCULUS II.** 4 Cr. Continuation of Calculus I. Antiderivatives; integration theory, techniques, and applications; parametric equations; vectors. Prerequisite: 355-153.

**355-156 CALCULUS AND ANALYTIC GEOMETRY I.** 5 Cr. Review of real numbers, inequalities, absolute values, intervals, and continuity. Analytic geometry of the plane. Limit concepts, derivatives of algebraic functions; definite integral. Not open to students who have completed 355-153 or 355-154.

**355-157 CALCULUS AND ANALYTIC GEOMETRY II.** 5 Cr. Application of the derivative and definite integral. Conic sections, and other algebraic curves. Calculus for rational, algebraic, circular, exponential and trigonometric functions; formal integration. Prerequisite: 355-156.

**355-255 DIFFERENTIAL EQUATIONS.** 3 Cr. Common types of ordinary differential equations of the first and second order; linear equations with constant coefficients; series solutions, numerical approximations, systems of ordinary equations. Prerequisite: 355-154 or 355-157.

**355-265 MODERN GEOMETRY.** 3 Cr. Vector approach to plane and solid analytic geometry. Lines, conics, spheres, planes, second and third order determinants, distance functions, loci, vector products, transformation of coordinates. Prerequisite: 355-153 or 355-156.

**355-275 LINEAR ALGEBRA.** 3 Cr. Algebra of linear transformations and matrices. Determinants, equivalence relations, rank systems of equations, vector spaces, orthogonal transformations, characteristic equations and quadratic forms. Prerequisite: 355-153 or 355-156.

**355-331 PROBABILITY THEORY.** 3 Cr. Probability in discrete sample spaces. Conditional probabilities, independent events, combinatorial analysis, random variables. Prerequisite: 355-153 or 355-156.

**355-370 MODERN ALGEBRA I.** 3 Cr. Set theory, mappings, equivalence relations and classes, mathematical induction, Peano's postulates, isomorphisms; development of natural numbers, integers, rational, and real numbers; introduction to integral domains and rings. Prerequisite: 2 years of college mathematics.

**355-371 MODERN ALGEBRA II** (355-471). 3 Cr. Continuation of Modern Algebra I. Rings, integral domains, fields, polynomials, groups, vector spaces. Introduction to the algebra of matrices. Prerequisite: 355-370.



**355-450 REAL ANALYSIS I (355-350).** 3 Cr. Rigorous development of advanced topics in analysis. Functions, real numbers, sequences, Cartesian spaces, sequences of functions, limit superior and inferior, continuous functions. Prerequisite: 355-154 or 355-157.

**355-451 REAL ANALYSIS II (355-351).** 3 Cr. Continuation of the topics of Real Analysis I. Differ-

entiation, integration, infinite series. Prerequisite: 355-450.

**355-460 COMPLEX VARIABLES WITH APPLICATION.** 3 Cr. Complex numbers, analytic functions, elementary functions of complex variables, mapping of elementary functions, integration techniques, power series and calculus of residues. Prerequisite: 355-255.

## MUSIC

The objective of the Stout music department is to provide musical experience and opportunities for the development of understanding and appreciation of music. The study of this art not only enhances intellectual acumen but also provides aesthetic enjoyment and aids in the development of social coordination through group effort. The organization seeks to further the interest of musical culture and entertainment and to enhance the spirit and character of the university.

The musical organizations are open to any student in the university who can qualify and may be taken for credit as academic electives. All students are invited to attend concerts and may elect music courses and organizations for university credit.

**360-080 PEP BAND (360-180).** 0 Cr. An extension of the concert band. Performs at all home basketball games and two away games.

**360-090 STAGE BAND (360-190).** 0 Cr. Primarily organized to study and perform the music of the large dance band. Membership by audition only. Membership open to any qualified Stout student.

**360-100 APPLIED MUSIC (360-100).** 1 Cr.

**360-134 RUDIMENTS OF MUSIC FOR EARLY CHILDHOOD EDUCATION MAJORS.** 1 Cr. A study of the fundamental elements of music; i.e. note reading, pitch, rhythm and vocabulary. Emphasis is placed on the use of flutophone, autoharp, rhythm instruments, and the voice in class. A survey of materials and methods suitable for pre-school music is made.

**360-134 RUDIMENTS OF MUSIC.** 1 Cr. An integrated survey course in the fundamentals of musicianship.

**360-151 HARMONY 1A.** 1 Cr. A detailed study of chord construction. All triads in major and minor modes, and dominant sevenths and their inversions. Dispersed harmony. Keyboard work and the playing of cadences.

**360-153 MUSIC APPRECIATION.** 2 Cr. The materials of music as they pertain to perceptive listening. Study is related to a view of music and musicians from medieval times through the contempo-

rary period and seeks to lead the student to a significant awareness of great music.

**360-165 GLEE CLUB.** 0 Cr. Testing and classification of voices, basic principles of good choral techniques. Provides the training necessary for membership in the Symphonic Singers.

**360-200 APPLIED MUSIC.** 1 Cr. Prerequisite: 360-100.

**360-234 ADVANCED TOPICS OF MUSIC.** 1 Cr. A continuation of 360-134 with considerable freedom of specialization according to individual needs, interest, and ability. Prerequisite: 360-134.

**360-265 COLLEGE CHOIR.** 1 Cr. Advanced choral techniques, reading and analysis of choral music of all types and periods. Concert and radio appearances. Membership by audition only.

**360-266 STOUT CONCERT BAND.** 1 Cr. Membership by audition only.

Fundamentals of musical expression, tone production and quality, and special problems of technique. Formal concerts and radio broadcasting. Each spring instrumentalists are selected for the annual spring tour.

**360-267 STOUT SYMPHONIC SINGERS.** 1 Cr. Membership by audition only. Advanced choral techniques, reading and analysis of choral music of all types and periods. Each spring vocalists are selected for the annual spring tour.

**360-268 SOLO AND ENSEMBLE.** ½ Cr. Coaching of advanced performers, both vocal and instrumental, for public performance and radio work. Prerequisite: 360-266 or 360-267.

**360-300 APPLIED MUSIC.** 1 Cr. Prerequisite: 360-200.

**360-400 APPLIED MUSIC.** 1 Cr. Prerequisite: 360-300.

## PHILOSOPHY

**365-201 INTRODUCTION TO PHILOSOPHY** (365-101). 3 Cr. Introduction to various fields of philosophy, the history of philosophy, and the nature of philosophical investigation.

**365-301 INTRODUCTION TO LOGIC AND SCIENTIFIC METHODS.** 3 Cr. An examination of the forms of deductive reasoning and the fallacies together with a consideration of the inductive logic of evidence, confirmation, and probability.

**365-501 PHILOSOPHY AND SCIENCE** (365-401). 3 Cr. An analy-

sis of selected problems involved in the assumptions, concepts and methods of the physical sciences and technology and a consideration of the impact of science and technology on other areas of life.

**365-550 PHILOSOPHICAL ETHICS** (365-420). 3 Cr. A problem-oriented study of the area of philosophy which concerns moral decision. This course will involve an enquiry into the various philosophical views on the general norm of morality as well as an investigation into the dynamics of ethical decision in particular areas of life.

## PHYSICAL EDUCATION

**366-101 PERSONAL HEALTH. 1 Cr.** The relationship of personal health in the whole person. Of particular interest to the professional leader in education and community health practices.

**366-102 FOUNDATIONS OF PHYSICAL EDUCATION (368-128). 1 Cr.** An interpretation of psychological, physiological and sociological bases of physical education; an image of physical education as a discipline for all students.

**366-235 RHYTHMICAL ACTIVITIES (368-235). 2 Cr.** A teaching methods course in the fields of rhythms—modern, folk, square and social dance.

**366-240 FIRST AID AND SAFETY. 2 Cr.** American Red Cross requirements for standard and advanced First Aid. Safety practices for emergencies in the home, classroom, playground or business.

**366-241 SENIOR LIFE SAVING (368-128). 1 Cr.** A Red Cross training program which provides the student with knowledge and skills designed to save his own life or the life of another in the event of an emergency. Prerequisite: ARC Swimmers Level ability.

**366-242 WATER SAFETY INSTRUCTOR. 1 Cr.** The American

Red Cross training course for water safety instructors. Consists of Part 1—teaching and testing of swimming, life saving skills, and general knowledge of water safety; and Part 2—theoretical and practical knowledge and assistance in teaching of Red Cross life saving and water safety courses. Prerequisite: Senior Life Saving.

**366-340 CAMP LEADERSHIP (366-370). 2 Cr.** Role of camp counselors in relationship to objectives, organization, guidance, leadership skills, and program resources in organized camps; actual practice in camp-craft skills.

**366-370 ELEMENTARY SCHOOL PHYSICAL EDUCATION (368-360). 2 Cr.** Methods and materials for teaching physical education in the elementary school.

**366-375 HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION (366-420). 3 Cr.** Physical education from ancient to modern times with relationship to the social situation. Biological, sociological and psychological foundations of physical education.

**366-380 ADMINISTRATION OF INTRAMURAL SPORTS. 2 Cr.** An overview of the problems, procedure, philosophy and trends currently existing within intramural programs in high schools and universities in the United States.

## PHYSICAL EDUCATION — MEN

**367-127 PHYSICAL EDUCATION. ½ Cr.** Activities are to be selected from the following offerings: Apparatus, badminton and tennis, basketball and speedball, bowling, social dance (co-ed), swimming (non-swimmers, swimmers, senior

life saving, or pre-instructor's and instructor's course), tumbling, volleyball, weight training, wrestling, archery, golf, softball, track, water games, circuit training and outdoor skills.



**367-150 PRINCIPLES OF PHYSICAL EDUCATION.** 2 Cr. The principles of physical education based on scientific facts and expression of educational ideals. Aims and objectives of physical education as applied to various school levels.

**367-201 GYMNASTICS (367-220).** 2 Cr. Elements of gymnastic tumbling and the use of gymnastic apparatus as a part of a modern program of physical education.

**367-202 INDIVIDUAL AND DUAL SPORTS (367-350).** 2 Cr. History and theories of play. Rules and regulations of individual and dual sports. Badminton, tennis, table tennis, bowling, golf, archery, horseshoes and practice of the various skills.

**367-250 ATHLETIC TRAINING AND CONDITIONING.** 2 Cr. To provide the student who is considering entering into the field of Physical Education and/or coaching, a basic understanding of the prevention, treatment and care of athletic injuries.

**367-325 RECREATIONAL LEADERSHIP.** 2 Cr. Objectives, principles, methods, and content of a recreational program. Problems of facilities, equipment, and leadership. Organization and administration of a recreational program for various age levels.

**367-355 TEAM SPORTS (367-455).** 2 Cr. Fundamentals and teaching knowledge of the following sports: touch football, soccer, softball,

speedball, volleyball, basketball, hockey, and games leading up to team sports.

**367-360 RECREATIONAL GOLF.** 1 Cr. Fundamental principles of golf including skills, history, etiquette and practical application of techniques. The student is required to play 27 holes of golf, pay green fees, and furnish 3 golf balls for class use.

**367-450 ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION.** 2 Cr. The problems that arise in everyday experience of the instructor in physical education. The relationship of physical education to general education; objectives of physical education, utilization, planning and care of facilities and equipment; time allotment, classification of activities and children, leadership, organization, supervision, routine procedures.

**367-460 COACHING BASKETBALL & FOOTBALL.** 2 Cr. Fundamentals and methods of teaching and coaching football and basketball. Specified techniques analyzed. Definite plan of offense and defense presented. Rules, practice schedules, fundamentals, theories, and their application.

**367-470 COACHING BASEBALL & TRACK.** 2 Cr. Fundamentals and methods of teaching and coaching baseball and track. Specific techniques analyzed. Definite plan of offense and defense presented. Rules, practice schedules, fundamentals, theories, and their application.

## INTRAMURAL ATHLETICS

A complete program of all seasonal sports consisting of an "Activity for All" aim is available to all students. Organized tournaments are conducted during the year in archery, badminton, basketball, bowling, golf, horseshoes, softball, swimming, table tennis, touch football, tennis, wrestling, volleyball,

and track. Varsity letter winners are not eligible to participate in the sport in which they have lettered. The facilities and equipment of the Department of Physical Education are available to students for recreation when there are no scheduled activities.

## PHYSICAL EDUCATION — WOMEN

**368-128 PHYSICAL EDUCATION.**  $\frac{1}{2}$  Cr. Activities are to be selected from the following offerings: basketball, bowling, gymnastics, modern dance, movement fundamentals, riding, social dance, swimming (non-swimmers, advanced beginning, intermediate, swimmers, senior lifesaving or water safety instructor), archery, golf, softball, tennis, volleyball, field hockey, folk dance, badminton, body mechanics, relaxation skills, weight training and introduction to conditioning programs.

**368-215 GYMNASTICS.** 2 Cr. Skills and methods in tumbling, apparatus and conditioning.

**368-225 INDIVIDUAL AND DUAL SPORTS A.** 2 Cr. Skills, rules, and teaching methods in track and field, bowling, badminton, and recreational games.

**368-226 INDIVIDUAL AND DUAL SPORTS B.** 2 Cr. Skills, rules, and teaching methods in archery, tennis and golf.

**368-245 TEAM SPORTS.** 2 Cr. Skills, rules, and teaching methods in field sports, basketball, volleyball and softball.

**368-345 OFFICIATING.** 1 Cr. Designed to give interested persons an opportunity to study rules and techniques for officiating team sports.

**368-408 METHODS OF TEACHING PHYSICAL EDUCATION.** 2 Cr. Class organization and methods of teaching physical education. Participation with actual classes through the required freshman program.

## RECREATION

At the present time the Women's Recreation Association is operating two types of programs. The first is an intramural program for all interested women students living on and off campus. The sports

areas included are tennis, volleyball, basketball, badminton, and softball. In addition to these sports the swimming pool is available for the women students on one or two designated evenings each week.

The second program under the control of WRA at this time is one involving intercollegiate competition in sports for women. Stout is a member of the Wisconsin Athletic and Recreation Federation of College Women and presently has competition in their events in swimming, gymnastics, volleyball, basketball, track and field, softball, and badminton.

The modern dance group also operates under WRA. They present performances both on and off campus.

An outstanding member of the intercollegiate program of the WRA is chosen for the Irene Erdlitz award at the end of the school year.

## PHYSICS

**372-221 MECHANICS AND ELECTRICITY.** 5 Cr. A study of the basic concepts in mechanics and electricity. Prerequisite: 355-121 or equivalent.

**372-223 PHYSICS II.** 3 Cr. General laws of physics in the fields of sound and light. Acoustics, vision, lighting standards, lenses, optical instruments, polarization, and fluorescence. Prerequisite: 372-221.

**372-325 PHYSICS — STRENGTH OF MATERIALS (372-225).** 3 Cr. Fundamental theory of strength of materials. Analysis of tension, compression, shear, biaxial tension and compression, torsion, stresses and deflection of beams. Prerequisite: 372-221.

**372-527 PHYSICS — ELECTRONICS (372-327).** 3 Cr. Theory and application of semi-conductors, vacuum and gas tubes. Basic principles of electronic circuits. Prerequisites: 355-153, 372-221; 110-240 or 110-244.

**372-529 PHYSICS — MODERN PHYSICS (372-329).** 3 Cr. Elements of atomic and nuclear physics and the industrial application of atomic energy. Prerequisites: 372-223, 355-153.

**372-531 PHYSICS — MECHANICS I (372-331).** 3 Cr. Essential elements of statics including simple force system, theory and application of non-concurrent forces, couples, friction, non-coplanar forces, trusses, and other structures. Prerequisite: 372-221, 355-153, 354-141.

**372-533 PHYSICS — MECHANICS II (372-333).** 3 Cr. Essential elements of dynamics including rectilinear, angular, and harmonic motions; forces producing motion, work, energy, acceleration, impulse and momentum. Prerequisite: 372-221, 355-153.

**372-535 PHYSICS—OPTICS (372-435).** 3 Cr. Geometrical and physical optics. Optical instruments, spectrum analysis, diffraction, interference, polarization and lasers. Prerequisite: 372-223, 355-154.

**372-537 ELECTRICITY AND MAGNETISM (372-437).** 3 Cr. The properties of electric and magnetic fields in free space and in material media. Prerequisites: 372-221 and 355-157 or 355-154.

**372-641 FLUID MECHANICS (372-441).** 3 Cr. The basic properties of fluids in motion are devel-



oped for both compressible and incompressible fluids. The equations of fluid flow are developed and solved for both rotational and irrotational flows. Prerequisites: 372-533 and 355-154.

**372-705 CLASSICAL PHYSICS IN INDUSTRY (372-505).** 3 Cr. Selected topics in classical physics are studied. Emphasis is placed on

topics that have important industrial applications. Prerequisite: 372-221.

**372-706 MODERN PHYSICS IN INDUSTRY (372-506).** 3 Cr. Selected topics in modern physics are studied. Emphasis is placed on topics that have important industrial applications. Prerequisite: 372-221.

## POLITICAL SCIENCE

**375-210 GOVERNMENT (375-311).** 3 Cr. Functioning of governmental units in the U.S.A. Political principles, processes, problems; constitutional principles. Comparison of selected foreign governments.

**375-220 STATE AND LOCAL GOVERNMENT (375-312).** 3 Cr. State and local governments within the U.S. federal system. Prerequisite: 375-210.

**375-310 POLITICAL PARTIES & PRESSURE GROUPS (375-417).** 3 Cr. Analysis of modern political parties. Nominating methods, campaigns, elections. Practical politics in legislative bodies; machines and bosses. Prerequisite: 375-210.

**375-320 CIVIL LIBERTIES IN THE UNITED STATES (375-420).** 3 Cr. The constitutional basis of the rights of minority groups; emergent trends in voting rights; free speech, freedom of religion, censorship, rights of defendants, and limitations of dissent. Prerequisite: 375-210.

**375-340 INTERNATIONAL RELATIONS (375-425).** 3 Cr. World survey of conditions determining

power relationships, i.e., balance of power, collective security, and deterrence; analysis of the role of international organizations in world politics. Prerequisite: 375-210.

**375-345 PROBLEMS OF AMERICAN FOREIGN POLICY (375-430).** 3 Cr. Descriptive analysis of the way American foreign policy is formulated by federal agencies; persistent problems in national security and international stability. Prerequisite: 375-210.

**375-350 INTRODUCTION TO COMPARATIVE GOVERNMENT (375-440).** 3 Cr. Political institutions of major foreign nations, stressing comparison of basic principles and techniques with those of the United States; survey of political institutions of underdeveloped areas. Prerequisite: 375-210.

**375-550 POLITICS AND TECHNOLOGY (375-455).** 3 Cr. A contemporary and future look at technological innovations will show an increased relationship between the political institutions of a country and the promotion, regulation, and impact of industry and technology. This relationship will be explored in the United States as well as other selected countries.

## SOCIOLOGY AND SOCIAL WORK

**387-110 INTRODUCTORY SOCIOLOGY.** 3 Cr. Social interaction in human groups. Relationships between the individual and the group; basic institutions; social change and current trends.

**387-205 INTRODUCTION TO SOCIAL WORK** (387-302). 3 Cr. The field of social work as a profession; history and philosophy of social services; basic information for teachers, counselors, and those interested in the profession. Prerequisite: 387-110.

**387-215 SOCIOLOGY OF THE FAMILY** (387-315). 3 Cr. The family as an institution. History; variations in other cultures; relationship to other institutions. Interactions of members in various stages of the life cycle. Prerequisite: 387-110.

**387-250 SOCIAL PSYCHOLOGY** (387-350). 3 Cr. The theory of social interaction and its applications with special emphasis on communication. Prerequisite: 387-110.

**387-480 AMERICAN INDIANS AND CONTEMPORARY AMERICAN SOCIETY.** 3 Cr. A study of American Indians and American Indian communities and their place in modern American life. Cross-cultural aspects will be explored in depth. This is a summer course for students chosen by the Clyde Warrior Institute.

**387-490 ISSUES IN CHANGE AND DEVELOPMENT IN AMERICAN INDIAN COMMUNITIES** (387-481). 3 Cr. Analysis of the complex processes of education, law, and urban life that operate directly on Indian communi-

ties. Selected cases in these areas will be examined. Field trips will be made to an urban center, a reservation, and to Menominee County. This is a summer course for students chosen by the Clyde Warrior Institute.

**387-515 PROBLEMS OF AMERICAN SOCIETY** (387-411). 2 Cr. Sociological perspective on selected social problems. Prerequisite: 387-110.

**387-525 SOCIOLOGY OF LEISURE** (387-425). 3 Cr. An institutional approach to the effects of leisure on social structure; the values reflected in leisure; problems attending the increase in leisure resources. Prerequisite: 387-110.

**387-530 SOCIOLOGY OF THE COMMUNITY** (387-430). 3 Cr. Structure of the community, chiefly in the U.S. Variability and current trends; research techniques; community development. Prerequisite: 387-110.

**387-540 SOCIOLOGY OF WORK** (387-440). 3 Cr. Human behavior in various types of employment and occupations; trends in the occupational structure of the U.S. Prerequisite: 387-110.

**387-560 JUVENILE DELINQUENCY** (387-460). 3 Cr. Definitions and trends of deviant behavior among youth; research findings; efforts toward prevention, control, and treatment. Prerequisite: 387-110.

**387-575 SOCIOLOGY OF MINORITY GROUPS** (387-475). 3 Cr. So-



cial-psychological aspects of the interaction between majority and minority groups; trends of minorities in the United States. Prerequisite: 387-110.

**387-590 SOCIOLOGICAL THEORY** (387-490). 3 Cr. Contributions of major social theorists; chief components of contemporary general sociological theory. Prerequisite: 387-110.

## SPEECH

**391-100 FUNDAMENTALS OF SPEECH** (391-106). 2 Cr. Techniques of effective speech based upon diagnosis of individual needs and training for the improvement of the necessary skills. Emphasis on speaker-listener relations, speech organization, voice, bodily action, language, and the development of confidence and poise.

**391-101 FORENSICS**. 1 Cr. Training in speech through participation in intercollegiate forensics, including oral interpretation, oratory, extempore speaking, after-dinner speaking, debate, discussion, and preparation of speech programs.

**391-102 FORENSICS**. 1 Cr. Training in speech through participation in intercollegiate forensics, including oral interpretation, oratory, extempore speaking, after-dinner speaking, debate, discussion, and preparation of speech programs.

**391-103 FORENSICS**. 1 Cr. Training in speech through participation in intercollegiate forensics, including oral interpretation, oratory, extempore speaking, after-dinner speaking, debate, discussion, and preparation of speech programs.

**391-104 FORENSICS**. 1 Cr. Training in speech through participation in intercollegiate forensics, including oral interpretation, oratory, extempore speaking, after-dinner speaking, debate, discussion, and preparation of speech programs.

**391-110 SPEECH FOR INTERNATIONAL STUDENTS**. 1 Cr. Practical experience in communications in various situations. Individual and group attention to speaking and listening through the use of phonetics and tape recordings. Length of course varies with individual progress.

**391-130 THEATRE WORKSHOP** (391-344). 1 Cr. Practical experience in directing, acting, and/or stagecraft through participation in University Theatre productions. Prerequisite: 391-100.

**391-131 THEATRE WORKSHOP** (391-345). 1 Cr. Continuation of Speech 130. Further experience in some phase of play production in University plays. Prerequisite: 391-130.

**391-200 ESSENTIALS OF PUBLIC SPEAKING** (391-223). 2 Cr. Advanced techniques of speaking. Development of proficiency in audience analysis, speech composition, and delivery of various types of speeches. Prerequisite: 391-100.

**391-202 ADVANCED SPEECH ACTIVITIES** (391-320). 2 Cr. Individual and group activities for developing skill in a variety of speech situations. Projects in analysis and delivery of literature. Special consideration of individual problems. Prerequisite: 391-100.



**391-204 TECHNIQUES OF GROUP LEADERSHIP** (391-322). 2 Cr. Techniques for presiding at various meetings through use of parliamentary law. Training in the art of persuasion as a means of motivating and guiding the behavior of others. Prerequisite: 391-100.

**391-206 DISCUSSION AND DEBATE** (391-325). 2 Cr. Principles and techniques of discussion and debate: Leading and participating in the symposium, panel round-table, and other discussion forms; preparing and presenting debates on current problems. Prerequisite: 391-100.

**391-232 INTRODUCTION TO THEATRE** (391-200). 3 Cr. Development of the theatre from ancient times to the present. Emphasis on play styles, production methods, and audience appreciation; including reading of representative plays.

**391-244 RADIO PROGRAMMING AND PRODUCTION** (391-250). 3 Cr. Planning, writing, and producing various types of radio programs. Programs may be broadcast from University radio station. Prerequisite: 391-100.

**391-310 INTRODUCTION TO SPEECH CORRECTION** (391-450). 2 Cr. The nature, causes, and methods of correcting voice and articulation defects. Prerequisite: 391-100.

**391-334 CONTEMPORARY THEATRE** (391-340). 2 Cr. Analysis of selected plays including structure, dramatic content, and production methods. Field trips to current plays. Prerequisite: 391-100.

**391-336 STAGECRAFT AND SCENE DESIGN** (391-445). 2 Cr. Technical problems in producing plays; designing the set; construction, painting, and handling scenery; stage lighting; make-up; costuming; sound and visual effects; and organization of the production staff. Prerequisite: 391-100.

**391-338 PLAY PRODUCTION** (391-444). 2 Cr. Directing and staging of plays: selecting, rehearsing, and acting techniques. Prerequisite: 391-100.

**391-475 DIRECTION OF SPEECH ACTIVITIES**. 2 Cr. Organization, administration, procedures, and judging of speech activities such as plays, oratory, interpretation, public speaking, discussion and debate. Prerequisite: 391-100.

**391-508 SPEECH SKILLS FOR BUSINESS AND INDUSTRY** (391-405). 2 Cr. Training in technical speaking; projects emphasizing the application of speech skills and activities in business and industry. Prerequisite: 391-100.

**391-512 SPEECH SKILLS FOR EDUCATORS** (391-406). 2 Cr. Application of leadership techniques and speech skills in classroom and educational activities. Prerequisite: 391-100.

**391-554 TELEVISION PROGRAMMING AND PERFORMANCE** (391-470). 3 Cr. Planning, writing, and performing in instructional, public service, special feature, or dramatic television programs. Programs will be produced in cooperation with students in 107-493. Prerequisite: 391-100.

## SCHOOL OF EDUCATION

### JOHN B. STEVENSON, PH.D., DEAN

Programs: Psychology  
Vocational Rehabilitation

## PROFESSIONAL TEACHER EDUCATION

To qualify for teacher education, students must meet a number of pre-admission requirements. Official entry to teacher education generally occurs the first or second semester of the junior year even though students may have enrolled in education courses as freshmen or sophomores in some programs.

Pre-admission requirements are: A grade point average of 2.25, which must be maintained through the senior year.

Students must have approval from the Health Department. If a physical examination blank signed by a physician is properly filled out and on record in the office of the Health Department, and no known health problems exist, this approval is automatically provided by the school nurse who sends a signed form to the Dean of Student Affairs. Individuals facing special and temporary problems in health may apply for admission to the Student Personnel Committee for Teacher Education.

Students wishing to qualify for teacher education must show proficiency in English by earning a "C" in the last course in English Composition or having a transfer record of "C" in such a course from another accredited college or university. If a deficiency exists, a student may elect to do remedial work in English to earn a "C" in the final examination of 102, or earn a qualifying score on the Cooperative English Test administered by the University Counseling Center.

Students entering teacher education must also present evidence of speech proficiency. All students are rated in the first required speech course as to their proficiency. Those rated as unsatisfactory may enroll in the non-credit evaluation program or take a second speech course (391-223, 391-320, 391-325, or 391-406) to attempt to achieve proficiency.

Complete curricula in teacher education are found under American Industry, Art Education, Distributive Education, Home Economics Education, Industrial Education, Early Childhood Education, Vocational Education, and Technical Education. (Department numbers in this section reflect the subject matter area.)

## ART EDUCATION

**405-608 INTRODUCTION TO TEACHING ART IN THE ELEMENTARY SCHOOLS (405-302).** 3 Cr. Development of basic knowledge and skills needed to foster and extend creative growth in children.

**405-609 INTRODUCTION TO TEACHING ART IN THE SECONDARY SCHOOLS (405-307).** 3 Cr. Development of art principles and practices that expand creative growth and development in secondary school students.



**405-610 STUDENT TEACHING** (405-408). 8 Cr. Directed teaching and community experiences in selected off-campus schools. Prerequisites: 405-608 and 405-609.

**405-611 CURRICULUM DEVELOPMENT FOR ART** (405-434). 2 Cr. A study of the needs and methods used in developing a sequential K-12 art curriculum.

## COUNSELING AND PERSONNEL SERVICES

**413-501 INTRODUCTION TO GUIDANCE AND COUNSELING** (421-401). 2 Cr. An overview of policies and practices of organized guidance programs for schools and colleges. Emphasis is given to the philosophy and evaluation of guidance, understanding the individual counseling, and group guidance as it affects the classroom teacher and personnel worker.

**413-629 GUIDANCE IN THE ELEMENTARY SCHOOL** (413-429). 2 Cr. The nature and conditions of guidance in the elementary school. Curricular and non-curricular guidance techniques, referrals, and parent counseling. Recommended principles and practices in guidance applied to the elementary school child.

**413-655 HUMAN RELATIONS IN THE COMMUNITY** (413-455). 2 Cr. Consideration of the social, psychological, medical, physical, spiritual and interpersonal aspects of growing into responsible adulthood.

**413-675 COUNSELING THEORY** (413-475). 2 Cr. The examination of theoretical approaches to counseling, including psychanalytic adaptations, behaviorism, trait-factor, client-centered and other approaches. Each approach is examined concerning the nature of man, the underlying personality theory, goals of counseling, the

role of counselor, and illustrative practical applications. The major objective of the course to develop a beginning personal theory of counseling. Prerequisite: 413-501.

**413-681 PSYCHOLOGY OF READING** (479-465). 2 Cr. Understanding the principles, methods and techniques of developmental reading, the psychological as well as the physical and environmental factors affecting the reading process are considered; the assessment of reading abilities including rate, level, and comprehension; reading tests are surveyed and their diagnostic value studied; and the application of these understandings in programs of remedial reading and to study learning skills.

**413-690 APTITUDE AND ACHIEVEMENT APPRAISAL** (413-490). 2 Cr. Selection, interpretation, and use of tests and inventories for teachers and counselors. Study of achievement, aptitude, interest and personality tests with experience in the interpretation of results. Prerequisite: 413-501 or 413-629 or 212-264.

**413-691 THEORIES OF CAREER DEVELOPMENT** (413-491). 2 Cr. A study of the psychology of work including career development, the meaning of work, job satisfaction and factors in career choice. Prerequisite: 413-501.



## DISTRIBUTIVE EDUCATION

**416-304 INTRODUCTION TO TEACHING — DISTRIBUTIVE EDUCATION.** 3 Cr. A methods course correlated with guided experiences involving directed observation and gradual assumption of teaching responsibilities in local schools. Includes the development of lesson plans and teaching aids. Prerequisites: 421-422, 421-303.

**416-404 CURRICULUM DEVELOPMENT—DISTRIBUTIVE EDUCATION.** 5 Cr. Development of an orderly procedure for the identification of concepts, generalizations and instructional units to be used in teaching. Course outlines; analysis of content; lesson plan-

ning; evaluation; management. Prerequisite: 416-304.

**416-408 STUDENT TEACHING—DISTRIBUTIVE EDUCATION.** 8 Cr. Directed teaching and community experiences in selected off-campus schools. Prerequisites: 416-404, 416-304.

**416-488 INTERN TEACHING DISTRIBUTIVE EDUCATION.** 8 Cr. An alternate method of obtaining student teaching experience on both the high school and post high school levels. Teacher interns receive a license to teach and salaried appointments in cooperating school systems for one full semester.

## EDUCATION

**421-095 PERSONAL LEARNING EXPERIENCE (421-495).** 2 Cr. An experimental program for juniors and seniors. By permission of program directors. Each student selects an area of life which involves ethical decision and investigates that decision-making process. The group enrolled for this experience meets with the directors twice a week for direction, discussion, and criticism. Self-evaluation paper at the close of the course, which is submitted to the critique of the directors and other members of the learning experience.

**421-205 A, B, C, D, E, F PROFESSIONAL TEACHER EDUCATION.** 2 Cr. A continuing seminar and teaching laboratory. Provides substantial information and guidance for the developing teacher. Development of the role of the teacher and controlled practice in teaching.

**421-303 EDUCATIONAL PSYCHOLOGY (479-303).** 2 Cr. Introduction to the psychological aspects of the educative processes. Emphasis on application of basic psychological principles to teaching. Focus on learner, learning process, and the teacher as an agent for change. Prerequisite: 479-110.

**421-422 PRINCIPLES OF SECONDARY EDUCATION (421-222).** 2 Cr. The evolution, status, and trends of secondary education. Needs of our democratic society; philosophy, organizational problems, curriculum development, and the responsibilities of the individual teacher. Prerequisite: 479-110.

**421-505 HISTORY OF EDUCATION (413-405).** 2 Cr. Elementary, secondary and higher educa-

tion in the U. S. from the early colonial period to the present time.

**421-541 CLASSROOM EVALUATION (421-441).** 2 Cr. Types of tests and test questions; the interpretation of test scores and grades by means of simple statistical procedures; methods of grading manipulative work and assigning final grades.

**421-596 MENTAL HEALTH IN THE SCHOOLS (421-496).** 2 Cr. A study of the total school community in terms of factors and dynamics contributing to the development or hindrance of the mental health of students, staff, administration, parents.

**421-630 EDUCATION FOR CHILDREN WITH SPECIAL LEARNING NEEDS (421-430).** 2 Cr. This course examines the characteristics of those students who are slow learners due to below average intelligence, learning disabilities, cultural and social differences, emotional problems, and other causes, and considers the implications for educational practice.

**421-641 EDUCATIONAL EVALUATION (421-516).** 2 Cr. Testing, the interpretation of tests by means of simple statistical procedures; methods of evaluating educational programs.

**421-670 CONFERENCE LEADING (421-470).** 2 Cr. Study of teaching. Study and practice of the principles and techniques of conference leading as an instructional device in vocational education. Prerequisite: 421-205 or equivalent.

**421-679 PUBLIC RELATIONS (421-479).** 2 Cr. Defines the public, objectives, and media of public relations in industry and education. Provides practice with such tools as news stories and features. Each student develops a simulated publicity program.

**421-681 AMERICAN HIGHER EDUCATION (421-481).** 2 Cr. An introduction to the ramifications of the American system of higher education including history, philosophy, administration, curriculum, students, teachers, and demands for employment. Undergraduates by permission of the instructor only.

## VOCATIONAL REHABILITATION

**459-201 INTRODUCTION TO REHABILITATION.** 3 Cr. An introduction to serving handicapped and disadvantaged persons. Philosophy, history, techniques, careers of vocational rehabilitation.

**459-202 COMMUNITY RESOURCES (459-301).** 2-3 Cr. A review of community resources and their respective role in rehabilitation. Prerequisite: 459-201.

**459-301 REHABILITATION PRACTICUM (459-302).** 2 Cr. Actual exposure to disability groups, direct and extensive contact with people working in rehabilitation, and practical experience working in different types of agencies serving clients. Prerequisites: 459-201, 459-202.

**459-400 REHABILITATION SEMINAR (459-486).** 1 Cr. A study of

the major current issues and problems confronting the field of vocational rehabilitation.

**459-503 PHYSICAL DISABILITY AND WORK** (459-403). 3 Cr. Etiology, diagnosis, treatment, prognosis, and vocational implications of physical disabilities.

**459-585 MENTAL RETARDATION AND BEHAVIORAL DISABILITIES** (479-433). 2 Cr. An introduction to the etiology of mental retardation; the psychological, educational, social, and vocational aspects; and adjustment techniques used in working with mentally retarded persons.

**459-5xx COMMUNICATIONS WITH THE DEAF.** 3 Cr. Basic course in manual communication with the deaf. Overview, history, sociology, and psychology of the deaf, history of manual alphabet, finger spelling, basic manual vocabulary.

**459-601 REHABILITATION METHODS I: EVALUATION.** 3 Cr. Review of techniques of assessing the vocational strengths

and weaknesses of persons through the utilization of work as the tool for evaluation. Prerequisites: 459-201, 459-202, 459-301.

**459-602 REHABILITATION METHODS II: ADJUSTMENT** (459-402). 2 Cr. A study of the work adjustment and training, interviewing and counseling, job placement and follow-up process with handicapped and disadvantaged people. Prerequisites: 459-201, 459-202, 459-301, 459-601.

**459-680 PRINCIPLES OF REHABILITATION COUNSELING** (459-480). 2 Cr. An introduction to the principles of rehabilitation counseling and their application to the total rehabilitation process. Emphasis is on the principles of case management and the procedures practiced in the state-federal system of vocational rehabilitation.

**459-x98 FIELD EXPERIENCE—VOCATIONAL REHABILITATION.** 2 Cr. Off-campus work and study in an approved position to better understand the challenges and potentials of various rehabilitation type careers. Prerequisite: 459-201.

## VOCATIONAL EDUCATION

**469-560 COOPERATIVE OCCUPATIONAL EDUCATION PROGRAMS** (469-460). 2 Cr. Philosophy, organization, coordination and teaching techniques of cooperative education programs in the various vocational areas. Roles, responsibilities and duties of the cooperative teacher coordinator.

**469-602 PRINCIPLES OF VOCATIONAL, TECHNICAL, AND ADULT EDUCATION** (469-402).

2 Cr. Philosophy, organization and administration of vocational and adult education in the nation with special attention given to the Wisconsin program.

**469-674 ADULT EDUCATION** (469-474). 2 Cr. Philosophy and history of adult education movement in the United States. Technique of teaching adults including psychological factors, methods, adult interests and characteristics.



## PSYCHOLOGY

**479-100 PSYCHOLOGY SEMINAR I (Foundations).** 1 Cr. The first of a continuing seminar will be a gathering of 15-20 students beginning their study of human behavior at Stout. Each member will present information and ideas from courses, from campus and world learning experiences. Each will assess, with the help of a qualified person, his own aptitudes, interests and characteristics comparing them with those needed in psychology. An individual program plan will be developed. The seminar will be repeated until all introductory psychology courses have been successfully completed and an acceptable program has been planned.

**479-110 GENERAL PSYCHOLOGY (479-123).** 3 Cr. An introduction to the field of psychology as an academic discipline and as an applied human science. Primary emphasis is placed on the topics of scientific methodology in psychology, learning, perception, motivation, development, individual differences, mental health, cognitive behavior, the physiological basis for behavior, and on the applications of psychological principles to human experience.

**479-120 PSYCHOLOGY: ITS HISTORY AND SYSTEMS.** 3 Cr. A comprehensive survey of the history of psychology and of the basic systems which have developed into modern American psychology. Treatment is given both to the philosophic development of psychology and to the evolution of psychology as a behavioral science. A major emphasis is placed on the development of psychology in the nineteenth and twentieth centuries in western Europe and the United States with the schools

of thought: Structuralism, Functionalism, Behaviorism, Gestalt Psychology, and Dynamic Psychology receiving primary consideration. The state of modern psychology is considered and the contributions of a number of contemporary psychologists are examined.

**479-150 MAN: A COURSE OF STUDY.** 3 Cr. The course will address the question of "Who am I?" from a contemporary horizon where concerns of psychology intersect biology, philosophy, sociology, anthropology, history, and religion. From there we move toward possible answers to man's perennial questions about himself and his future through readings and discussions of key works. The over-all objective of the course will be to help the student construct, for himself, a viable answer to the classical question "Why am I?"

**479-190 PSYCHOLOGICAL METHODS I.** 3 Cr. This course introduces the student to research in the behavioral sciences. Observational, clinical, historical, correlational, descriptive, and experimental techniques are introduced and evaluated. Through the study of contemporary psychological research, the student gains evaluative principles which will enable him to be an intelligent research consumer.

**479-251 CHILD PSYCHOLOGY (479-352).** 3 Cr. A study of the total psychological development of children emphasizing age groups spanning the pre-school and pre-pubescent child and methods for scientific measurement and understanding of child behavior. Prerequisite: 479-110.

**479-260 PERSONALITY AND MENTAL HEALTH (479-214).** 3 Cr. An introduction to the areas of psychology which are concerned with the recognition of the positive principles of mental health and their application to human behavior. In addition, an examination is made of a variety of theories which are representative of the major views of leading thinkers on the subject of personality and personality development.

**479-390 EXPERIMENTAL PSYCHOLOGY (479-263).** 3 Cr. This course serves as an introduction to the methodology and content of experimental psychology. This course is built around the concept of behavioral objectives which are used for guiding the learning process, and evaluating that process. Upon successful completion of this course, the student will be capable of formulating a psychological problem, designing an experiment to investigate this problem, planning all aspects of the experimental process, conducting a well run experiment, analyzing and interpreting results and evaluating the experiment. Prerequisite: 354-130.

**479-530 PSYCHOLOGY OF LEARNING (479-366).** 3 Cr. A course designed to acquaint the student with the principles of learning drawn from experimental and theoretical psychology. These principles are demonstrated as they apply to animal and human learning. Modern viewpoints toward theories of learning are emphasized.

**479-540 DIFFERENTIAL PSYCHOLOGY (479-358).** 3 Cr. Nature and extent of differences in individuals and groups are studied. Intelligence, achievement, aptitudes, interests, attitudes, and general personality are the major differ-

ences included. Race, sex, nationality, social class and age in relation to individual differences are studied.

**479-552 ADOLESCENT PSYCHOLOGY (479-350).** 3 Cr. The physical, emotional, social, moral, and intellectual development of secondary school youth. Prerequisite: 479-110.

**479-561 ABNORMAL PSYCHOLOGY (479-431).** 3 Cr. A study of more serious mental disturbances. Emphasis on the growing importance of mental disorders and on their early detection and referral is studied.

**479-562 PSYCHOLOGY OF THE EXCEPTIONAL CHILD (479-432).** 2 Cr. Guidance of the learning and development of children who deviate from the normal; the mentally retarded, gifted, socially and emotionally disturbed, and those with visual, speech and orthopedic problems.

**479-571 THE PSYCHOLOGY OF MARRIAGE AND THE FAMILY (479-326).** 2 Cr. A study of the interpersonal relations involved in dating, mating, and family collaboration with growing awareness of patterns for self-integration.

**479-581 INDUSTRIAL PSYCHOLOGY (479-430).** 2 Cr. A survey of the application of psychological principles of man's vocational pursuit. Emphasis is on individual differences and group behaviors which are involved in personnel selection, human factors engineering, industrial safety, motivation, personnel training, and consumer behavior. Course material is based primarily upon the latest behavioral science research in the field of industrial psychology. Prerequisite: 479-110.



**479-582 PERSONNEL MANAGEMENT** (479-435). 3 Cr. Organization and coordination of personnel practices and methods. Consideration given to communication, employment, orientation and training, working conditions, supervision, performance evaluation, collective bargaining, salary administration, health and recreation.

**479-690 PSYCHOLOGICAL MEASUREMENT** (479-390). 3 Cr. An introduction to the assumptions, models and applications of measurement techniques in behavioral

science. Test analysis, item analysis, reliability, and validity are extensively covered. The course also introduces the student to prediction and measurement of attitudes and opinions.

**479-x98 FIELD EXPERIENCE—PSYCHOLOGY.** 2 Cr. Off-campus work and study in an approved position to better understand the major concepts of psychology as they are applied to help solve and prevent human relations type problems.

## LEARNING RESOURCES

DAVID P. BARNARD, ED.D., DEAN

## AUDIO VISUAL

**107-504 ELEMENTARY PHOTOGRAPHY** (107-404). 2 Cr. Fundamentals of photography including aesthetics, basic theory, camera operation, film selection, lighting, roll film processing, contact printing, enlarging and print finishing. Student must provide his own camera.

**107-605 ADVANCED PHOTOGRAPHY** (107-405). 2 Cr. Advanced monochromatic photography including aesthetics, advanced theory, view camera techniques,

studio lighting, selection of photographic materials and equipment, sheet film processing, specialized processes and techniques. Prerequisite: 107-504.

**107-645 COLOR PHOTOGRAPHY** (107-445). 2 Cr. Includes aesthetics, color theory, film selection, lighting, copy techniques, slide duplication, reversal and negative color film processing, and color printing. Prerequisite: 107-504.

## AUDIO VISUAL EDUCATION

**407-535 FILM: HISTORY AND APPRECIATION** (407-435). 3 Cr. Traces the evolution of the motion picture film as a medium of mass

communication and aesthetic expression; contributions of noted film producers are identified.



**407-560 AUDIO-VISUAL COMMUNICATION (407-460).** 2 Cr. Methods of selecting and using audio-visual materials effectively in teaching. Experience in operating equipment, basic techniques of media preparation, practice in planning and presenting a lesson.

**407-561 PREPARATION OF AUDIO VISUAL MATERIALS (407-461).** 2 Cr. The planning and production of opaque materials, charts, graphs, posters, transparencies, bulletin boards, displays, models, mock-ups, specimens, script writing, chalkboard aids, and recording techniques. Prerequisite: 407-560.

**407-593 TELEVISION PRODUCTION TECHNIQUES (407-493).** 3 Cr. Production of television programs in cooperation with students in 391-554. Each student will gain experience as director, technical director, cameraman, floor manager, audio controlman, telecine operator, and lighting direc-

tor. Includes related technical information.

**407-636 FUNDAMENTALS OF MOTION PICTURE PRODUCTION (407-436).** 3 Cr. Fundamentals of Super 8 mm. and 16 mm. film production. Production planning, cost estimating, visual continuity, shooting, animation, editing, sound recording, titling, laboratory services, and other technical problems of production. Individual and group projects.

**407-694 INSTRUCTIONAL COMMUNICATIONS SYSTEMS (407-494).** 2 Cr. Application of electronic communications systems used to solve educational problems. Audio systems including microphones, tape decks, and duplicators, paging systems, language labs and inter-communication equipment; multi-media systems including information retrieval, multiple response, and simulators. Prerequisite: 407-560.

## STUDENT SERVICES



Student Services embraces all of the organized efforts, other than classroom instruction, that are designed to make student life an experience which is social as well as individual, and personal as well as intellectual. It attempts to apply education to all areas of living.

### HOUSING AND FOOD SERVICE

University regulations require freshman and sophomore students to reside in the residence halls, providing accommodations are available. Exceptions are made for veterans, students 21 years of age and older at the time of registration, married students and students living at home or the home of an immediate relative. All students living in University-listed housing are subject to both University regulations relative to off-campus housing and to the written house rules of the homeowner.

Upperclass students who wish to room in off-campus housing may select accommodations from the listed housing maintained in the Student Housing office.

Residence hall contracts are for the entire academic year. Off-campus housing contracts are for the semester or as agreed by student and landlord. In the absence of the written contract for off-campus housing, the period of residency will be for the duration of the semester.

The required housing deposit will reserve a room in one of the resi-

dence halls and will be applied against the final payment for the second semester of the academic year. The housing deposit will not be refunded if cancellation is received after July 15.

The University strives to make residence hall living a meaningful part of the entire social and academic educational process. When living in a residence hall, a student is able to fully participate in a university atmosphere. A professionally trained staff is present to help the student achieve academic and social goals. A wide variety of social, educational, and recreational activities provide the residents with an opportunity to identify with and become a part of Stout State University. The University provides residence hall accommodations for approximately 3,150 students. Two residence hall areas are located on the campus. The north residence hall complex, composed of Jeter-Tainter-Callahan Hall, Fleming Hall, Hovlid Hall, and Wigen Hall, accommodates approximately 950 students. Students of this complex receive their meals in the Tainter Food Service which is located in Jeter-Tainter-Callahan Hall. This dining hall overlooks beautiful Lake Menominee. The south residence hall complex, composed of Antrim-Froggatt-McCalmont Hall, Curran-Kranzsch-Tustison-Oetting Hall, Hansen-Keith-Milnes-Chinnock Hall, North Hall and South Hall, accommodates approximately 2,220 students. This complex has a separate food service facility for meal service.

Students residing in residence halls are required to contract for their meals in the food service facilities as provided. The meal contract plan provides for 21 meals per week.

Students who have arranged for residence hall accommodations will be notified during the month of August as to when the halls will be available for check in. All rooms are assigned for the entire academic year. Each room is furnished with two single beds and inner-spring mattresses, pillows, dressers, student desks, chairs, study lamps, and bookcases. Drapes and bedspreads are supplied. Students are requested not to bring additional furniture. Radios and stereos are permitted in the student rooms. Television sets are available for general use in the main lounge of each building.

At the present time, Stout State University has approximately 60 married-student units. These are barracks-type units with two bedrooms, a bath, a kitchen alcove, a living room and limited storage space. Married-student facilities are also available in the community of Menomonie.

Inquiries for student housing should be directed to the Director of Student Housing, Stout State University.

## MOTOR VEHICLES

Motor vehicles are to be brought to the campus by students only in cases where a real need exists for such transportation. All students are required to register their vehicles in accordance with the existing University policies. As parking facilities on or near the campus are very limited, students who expect to use University owned or controlled parking lots must register their vehicles and observe the regulations issued by the University Security office.

## MILITARY OBLIGATIONS

Men registered with the Selective Service System must keep their local boards informed of their student status if they wish to request a student



deferment. The Registrar's office has the required forms for requesting such a deferment. It is the student's responsibility to initiate the form.

Menomonie maintains a unit of the Wisconsin National Guard. Many students attending Stout belong to this unit.

It is possible for a man who joins a national guard unit and who then attends that unit's drills to be exempt from the selective service. A student who belongs to another guard unit within Wisconsin can continue his drill in Menomonie and still maintain the military status which he had while at home. Persons in national guard units in other states can make somewhat similar arrangements.

## THE FINANCIAL AIDS PROGRAM

Financial aids are awarded to students who, without such aid, would be unable to attend Stout State University. The awarding of financial assistance is based upon the applicant's financial need, scholastic promise, and qualities of leadership. Financial aids are awarded by the University Financial Aids office.

### HOW TO APPLY FOR FINANCIAL AIDS

Applicants may obtain the appropriate application forms from their high school counselor or the Director of Financial Aids. Incoming freshmen complete the Parents' Confidential Statement of the College Scholarship Service and the State of Wisconsin Freshman Application for Financial Aids. All other applicants complete the Parents' Confidential Statement and the Upperclassman Application for Financial Aid.

The following guidelines govern the awarding of financial aids:

1. A student may make an application for financial assistance at the same time he is applying for admission. No action will be taken on his financial aid application until he has completed the requirements for, and has been officially accepted for admission.
2. Most financial assistance is awarded by the semester or academic year.
3. Recipients of financial assistance (scholarships, loans, grants, and work study) are required to make a new application each year if financial aid is desired.

### THE NATIONAL DEFENSE STUDENT LOAN FUND

To be eligible for a National Defense Student Loan a student must:

1. Be accepted or enrolled at Stout
2. Be in need of financial assistance
3. Maintain a cumulative grade point average of 2.25 or rank in the upper 40 percent of their high school graduating class

Eligible students may be granted up to \$1,000 for each year while attending Stout. The amount of the loan is determined by the availability of funds and the student's financial need.

Repayment must be completed within a 10-year period at an interest rate of three percent per annum, to begin nine months after the borrower ceases to be a student. Up to 50 percent of a loan (plus interest) will be forgiven if the borrower becomes a full-time professional teacher. Teacher cancellation is to be at the rate of 10 percent a year up to five years. Cancellation of a loan at the rate of 15 percent per year, plus interest, without restriction as to the amount which may be finally cancelled, is

granted to a teacher who teaches in a school with a high concentration of students from low-income families or a teacher of the handicapped.

## WISCONSIN STATE STUDENT LOAN FUND

The Wisconsin State Student Loan is available to students:

1. Who are residents of Wisconsin
2. Who are in need of loan assistance
3. Who have a minimum high school grade average of "C"

There is no interest charged while in attendance at Stout, and a seven percent rate of interest begins nine months after the individual ceases to be a student at Stout.

The maximum amount of this loan for an academic year is \$1,000 and \$250 for the summer session.

## THE STOUT STATE UNIVERSITY LOAN FUND

This loan fund is a non-profit organization that is supported by funds received from alumni, student organizations, faculty, civic leaders, Menominee area businessmen and the Stout State University Foundation, Inc. This loan fund is available for short-term emergency loans to students for education expenses only. The maximum amount loaned is \$100 and the full repayment should be completed within 90 days.

## U.S. WORK-STUDY PROGRAM

Value: Students are compensated through an hourly wage rate as determined by the institution. Eligibility: United States citizens or residents of Trust Territories in good standing at Stout State University who show financial need may be offered such positions. Terms: Students may be employed an average of 15 hours per week while classes are in session and up to 40 hours per week during vacation periods.

## ON-CAMPUS EMPLOYMENT

Varied competencies are required by academic departments, maintenance departments, food services, recreational center, and other campus agencies. Students are placed with regard to their skills and ability to fulfill these requests.

## UNITED STATES EDUCATIONAL OPPORTUNITY GRANTS

Value: \$200-\$1,000, may not exceed 50 percent of student's assessed need. This grant must be matched by other institutional funds. Eligibility: Exceptionally needy students, as defined by federal regulations, who are United States citizens or residents of Trust Territories. Initial awards are usually restricted to entering freshmen. Duration: As long as the recipient is permitted to continue in the institution he is assured of this program based on a need analysis annually. (Maximum duration, eight semesters.)

## GUARANTEED LOAN PROGRAM

Interested students may inquire through local banks, university financial aids offices or the state Higher Education Aids Board (115 W. Wilson St.,



Madison 53702) about federally guaranteed loans. For recipients whose families have adjusted gross family income under \$15,000 yearly, the seven percent interest is paid by the federal government until the student leaves school, then the recipient pays the interest during repayment period of up to 10 years. If adjusted gross family income is over \$15,000, there is no federal interest subsidy.

## OFF-CAMPUS EMPLOYMENT

A number of job opportunities are available to students by Menomonie area employers. Academically promising students who meet the specific job requirements of an employer are referred to the employer for a personal interview.

## LEADERSHIP AND NEED SCHOLARSHIPS

Leadership scholarships are based on leadership qualities as well as academic records and need for financial assistance. The amounts will vary with financial need, with the maximum of two-thirds of the amount needed in addition to the family contribution for the school year.

## INFORMATION IS AVAILABLE

Additional information concerning financial aid and part-time employment can be obtained by writing to: Director of Financial Aids, Stout State University, Menomonie, Wis. 54751.

## FALL ORIENTATION FOR FRESHMEN

A major project during the first few days in the fall is to help new students become accustomed to living on a university campus. During the week a series of activities are planned to accomplish this goal. Activities include a convocation where the University's President outlines goals for the academic year. This is followed by discussion sessions where new students meet in small groups to discuss very informally the environment of a university. Blended into the business at hand is a pleasant mixture of recreational activities including free movies, name entertainment, dances, and a picnic. Meetings in residence halls, coffee parties, contacts with upperclassmen, and other planned activities all combined with the other events provide the new students with the impetus for the successful beginning of a university education.

## STUDENT ADVISEMENT PROGRAM (PASS)

An academic advisement program, directed by the Coordinator of New Student Advisement, provides all new students with assistance in completing class schedules during the summer registration program. The program is called PASS (Peer Advisement for Stout Students).

After the student arrives on campus to begin classes, he continues to receive assistance from the PASS office and from trained student advisors who work in the residence halls and in the Student Center (for commuting students). Information on course selection, majors and



minors, probation and suspension policies, transfer procedures, and many other items are available.

After a student completes a class schedule for the second semester and selects a major, he is assigned to the Program Director of his major who, in turn, assigns the student to a permanent faculty advisor.

A series of seminars, conducted in the residence halls, keep students informed of new developments with the different academic areas on campus.

The PASS office is the place where all students may come to seek assistance or information about problems related to the academic offerings and policies of the University.

## VETERANS SERVICE

Special assistance is given veterans by the Registrar's office. This office provides veterans with current information on veteran's affairs and maintains liaison with the Veterans Administration, Department of Veterans Affairs, and the County Veterans Service Officers.

## CAREER PLANNING AND PLACEMENT SERVICES

Career Planning and Placement Services offer to all Stout State University students and alumni full information and counseling about careers in general, and jobs in particular. This service seeks to enable the individual to appraise himself as well as the employment needs of society and thereby to select and enter a career which will provide personal satisfaction and self-realization.

This office enables prospective employees and employers to learn of each other. It does not guarantee employment. Every effort will be made, however, to obtain positions for qualified candidates who earnestly seek employment in keeping with ethical standards.

All seniors are expected to register and establish personal credentials in the Career Planning and Placement Services office in ample time to accommodate planning and placement, and in any event, prior to graduation. If such action is not taken prior to graduation, a \$25 processing fee will be charged for establishing such credentials following graduation. The success of this service is dependent upon reasonably complete and current records.

The Career Planning and Placement Services office maintains close communication with students, faculty, educational administrators, business executives, industrial personnel managers and government agency heads so that their various needs and interests can be properly interpreted and satisfied. Close cooperation among all parties is essential if this service is to be effective.

## UNIVERSITY COUNSELING CENTER

Counselors are available to each University student to assist him in deriving the maximum benefit from his university career. Counseling often

provides a means to continue growth in self understanding and in understanding others. Many decisions regarding educational, vocational, or personal-social choices can more effectively be made with the help of a counselor.

Counseling, psychological testing, and an extensive college catalog and vocational information library are available to all students who desire such assistance. Use of the Center is voluntary and is free of charge to Stout students. The vast majority of students using the services of the Center are experiencing "normal" kinds of concerns for college students; most students in the course of their college experiences will encounter some problems with which they could benefit from the help of an experienced, understanding person.

It should be understood that the counseling relationship and information obtained is kept in confidence; such information may be released to persons with legitimate interests only with the student's consent. Counseling practice follows the ethical standards for confidentiality of the American Personnel and Guidance Association and the American Psychological Association.

The Center's main office is located in the basement of Harvey Hall, Room 16. Hours are 8 a.m. to 4:30 p.m., Monday through Friday. Appointments to see a counselor may be made by calling extension 340 or 385, or by directly contacting the Center.

A satellite office is also maintained on the north campus in the University Health Services building. Students wishing to see a counselor are encouraged to make an appointment at the north campus office, if that location is more convenient to them. The office is staffed daily, and appointments there may be made either through the Counseling Center secretary in Harvey Hall or the Health Service secretary in the Health Services building.

## STUDENT ACTIVITIES

All extra-curricular activities at Stout State University are considered to be a part of the overall educational process. These activities are geared to the growth and development of the individual students. Through the various boards, committees, and staff the University provides cultural, social and recreational programs which complement the complete educational objective. In all these programs, encouragement is given to self-directed activity which gives maximum opportunity for self-evaluation and growth in social competency and group effectiveness. Such programs also serve as a laboratory for citizenship, training students in social responsibility, and for leadership in our democratic society.

The University Speakers Forum and the Performing Arts Council bring to the campus talents of national and international renown in the form of guest lecturers, singers, symphonies, singing or acting groups. The University Activities Assembly, a division of the Stout Student Association, encourages student leadership in providing further social and recreational activities such as films, Homecoming, Winter Carnival, a Creative Arts Festival, University Theater, and an extensive Forensics program. A number of organizations on campus are chartered with the purpose of meeting the extracurricular interests of the students. Such organizations are political clubs, recreational organizations, hobby groups, and other organizations which offer students the opportunity to continually develop their specific interests. In addition, a recreation and



intramural program is sponsored by the physical education department. Many other programs are sponsored by individual groups on campus.

More than 70 organizations are University affiliated. This number includes fraternities, sororities, religious and special interest groups, service organizations, and honorary societies. Such a range of organizations provides a broad spectrum of interests in which every student is encouraged to participate.

## THE MEMORIAL STUDENT CENTER

The hub of campus student social activity, the Memorial Student Center, presents an informal atmosphere for enjoyable experiences including lectures and cultural events, social programs, and informal gatherings. Facilities include a cafeteria, snack bar, ballroom, offices, bookstore, meeting rooms, and a recreational room featuring the latest in bowling and recreational equipment.

The newest feature in the Center is The Pawn. Opened in the fall of 1968, The Pawn presents a coffee house atmosphere with periodic live entertainment.

The Student Center Board, composed of students, faculty, and alumni, acts as an advisory organization in policy making for the center.

## STUDENT GOVERNMENT

The Stout Student Association includes all enrolled students. The SSA officers, elected by the student body, serve as the executive branch and are also the officers of the Student Senate.

The Student Senate consists of representatives of various interest groups and of the student body at large. The deans of students are members of the Senate which is the legislative branch of SSA.

The University Activities Assembly, a second division of the SSA, acts as a clearinghouse and facilitating agent for students and organizations who wish to program activities on campus.

## PUBLICATIONS

Stout State University claims two All-American publications—the TOWER, yearbook, and the Stoutonia, the student-published weekly newspaper.

The publications offer students considerable practical experience in writing, photography, editing and advertising. Editorial staffs for both publications begin duties in January.

A Stout literary book, published in the spring, affords students with additional artistic and literary opportunities.

## DRAMATICS

Alpha Psi Omega, a national dramatic fraternity, and the University Theatre group present several plays each year. Students participate not only in the acting, but in all phases of play production, including scene construction, staging and lighting.

## FORENSICS

The opportunity for intercollegiate forensics competition in oral interpretation, oratory, extemporaneous and public speaking is offered to the



students. The Wisconsin Kappa Chapter of Pi Kappa Delta, a national forensic fraternity, sponsors an invitational tournament and other events throughout the year.

## MUSIC

The Stout Concert Band and the Stout Symphonic Singers have received acclaim throughout Wisconsin and in other parts of the nation. Band activities include concerts, parades, football game shows, pep band appearances, and concert tours. The Stout Symphonic Singers have received many plaudits including a commendation from the Wisconsin General Assembly for their performances. Concert tours highlight the activities of the group. Glee Club, vocal and instrumental ensembles, in addition to solo performances, enrich the musical performance program on our campus.

## HONORARY PROFESSIONAL ORGANIZATIONS

A number of Honorary and/or Professional Fraternities and Sororities are chartered at Stout. These organizations supplement the specialized academic area with programs originating on a local or national level and disseminating the latest technical information available.

## PROFESSIONAL AND EDUCATIONAL CLUBS

These organizations offer opportunity for professional growth. In most instances these organizations provide practical experience opportunities which supplement the academic interests of the students.

## INTERNATIONAL RELATIONS

Since Stout is a leader in the field of Industrial Arts Education and Home Economics on an international level, students from many countries attend the University. With such a background of diverse cultures, these people enrich the student body by their association and exchange of ideas for our students. The International Relations Club offers opportunity to pursue international interests and associations on a more personal basis.

## SOCIAL FRATERNITIES AND SORORITIES

The social fraternities and sororities at Stout contribute to the social life and experiences of their members and also provide specific leadership experiences for them. In addition, the programming of these organizations are geared to further enhance the overall goals and objectives of the University.

## RELIGIOUS ORGANIZATIONS

There are several groups representing the different and diverse student religious preferences organized and active on the Stout campus. A number of local churches have united to provide full- or part-time adult leadership to groups as well as supplying off-campus centers for programs.

## SERVICE ORGANIZATIONS

While many organizations on campus perform services for the students and for the University in general, Alpha Phi Omega Fraternity and Gamma Sigma Sigma Sorority have as their main objective service to the University community; they participate in many official events on campus.

## ATHLETICS, SPORTS, AND RECREATIONAL ACTIVITIES

The athletic program at Stout State University exists for the contribution it makes to the total educational program. For the participants it provides general educational values and constitutes a laboratory for those who aspire to participation in coaching.

Intercollegiate athletics are under the direction of the Faculty Committee on Athletics. Stout State University is a member of the Wisconsin State University Athletic Conference and the National Association of Intercollegiate Athletics and is committed to the objectives and regulations of these organizations. The University has varsity teams in intercollegiate competition in baseball, basketball, football, golf, gymnastics, tennis, cross country, swimming, hockey, track, and wrestling. A bowling team which competes in the Wisconsin State University Bowling League is under the jurisdiction of the Student Center. The "S" Club is a campus organization for men who have earned letters in intercollegiate sports.

Intramural Athletics is considered an important part of the overall recreational opportunities for students. Programming is offered in a number of sports such as football, basketball, wrestling, and swimming. In addition, ample opportunity is provided for individual and group athletics during the many hours of open recreation in the Physical Education building.

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